THE RELATIONSHIP AMONG INSIGHT,ILLNESS,
AND PSYCHOSOCIAL IMPAIRMENTS IN PSYCHOTIC CLIENTS

BY

ROBERT C. SCHWARTZ

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1997

This dissertation is dedicated to Barbara, Julie, Raye, Harry, and to the loving memory of Bruce.

ACKNOWLEDGEMENTS

There are many important people who helped and supported me during my doctoral career. First, I would like to extend my heartfelt appreciation to my family. I am extremely grateful to my mother for her kindness and encouragement during this difficult period. I am also thankful to my sister who has always been there for me. Finally, I must acknowledge my grandmother, whose wisdom and advice helped make this journey more enlightening.

Second, I offer my thanks to Dr. Max Parker who offered guidance throughout my doctoral career. Dr. Parker accepted me as an advisee during my first semester as a doctoral student, and I greatly appreciate his ability to mentor me through the difficult and trying times.

Next, I wish to thank Dr. David Miller for both his availability and his knowledge. Dr. Miller always gave straightforward, precise, and extraordinarily helpful guidance throughout the planning and writing of my dissertation.

I also wish to extend my appreciation to Dr. Stephanie Puleo for her kindness and friendship during my doctoral career. I thank her for all the support and encouragement she gave during my times of ambivalence and hesitation.

In addition, I would like to thank Dr. Ellen Amatea for her professional advice and constructive criticism regarding my dissertation and other doctoral work. Her feedback has certainly increased the quality of my work.

Finally, I extend my gratitude to Dr. Sherri McIntyre for her patience and supervision. Dr. McIntyre was there for me as a supervisor, colleague, and friend throughout my doctoral career and I find it difficult to imagine this journey without her at my side.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

THE RELATIONSHIP AMONG INSIGHT, ILLNESS,
AND PSYCHOSOCIAL IMPAIRMENTS IN PSYCHOTIC CLIENTS

By

Robert C. Schwartz

December, 1997

Chairperson: Dr. Woodroe M. Parker
Major Department: Counselor Education

The purpose of this study was to examine the
relationship among insight, illness, and psychosocial
impairments using a diverse sample of psychotic clients. All
clients were diagnosed by experienced clinicians and a board-
certified psychiatrist. Clinicians blind to the purposes of
this study rated clients according to degree of insight,
severity of symptoms, severity of psychosocial impairments,
overall functioning, and total years of treatment.

Participants included 170 clients (95 male, 75 female)
ranging in age from 18-79 years. Participants were generally
from a lower socioeconomic class and had a long history of
psychosis. Clients were selected from three treatment
locations (inpatient, outpatient, and supportive housing) in
a 12-county area in Florida.

After a structured clinical interview, each participant was rated according to the Scale to Assess Unawareness of Mental Disorder, the Functional Assessment Rating Scale, and the Global Assessment of Functioning Scale. Data were analyzed using a series of 17 multiple regression equations. Results indicated that there was a significant relationship among insight, illness, and psychosocial impairments in psychotic clients. Poor insight was associated with worse symptoms of illness and more severe psychosocial impairments. In addition, certain symptoms of illness were associated with more severe psychosocial impairments, worse global functioning, and increased total years of treatment.

It was concluded that poor insight may predict severe thought disturbances, cognitive impairments, suicidality, and homicidality in psychotic cients. Furthermore, symptoms such as hyper affect, thought disturbance, cognitive impairments, and traumatic stress may predict psychosocial problems such as poor self-care skills, dangerousness to self or others, interpersonal problems, and poor overall functioning. These findings generally support prior theory and research in this area. Poor insight in psychotic clients seems to be associated with neurocognitive abnormalities and associated psychotic symptoms. This lack of awarenesss of mental disorder, as well as other symptoms of illness, often leads to various psychosocial impairments. Implications and recommendations for further research are outlined.

CHAPTER 1
INTRODUCTION

Psychosis in a severe form of mental illness which could cause long-term, pervasive impairments in an individual's life (Kavanagh, 1992). Moreover, psychotic disorders are common among the general population, perhaps affecting as many as two percent of persons (Morrison, 1995). Among all mental illnesses, clients with psychotic disorders are significantly overrepresented in terms of first admissions and readmissions to mental health treatment units (Sanguineti, Samual, Schwartz, & Robeson, 1996). This type of mental illness requires more in indirect costs (e.g., loss of work) and direct costs (e.g., treatment) than all other mental disorders (Talbott, Goldman, & Ross, 1987). One variable linked to better treatment outcome and possibly less severe psychotic symptoms is increased insight (Schwartz, in press). Insight is defined in this study as awareness of having a mental disorder, the consequences of the mental disorder (e.g., hospitalizations), and the need for treatment. Insight is therefore synonymous with awareness. Insight will not refer to a deep knowledge of the self, an understanding of one's unique personality traits, or any other psychodynamic concept.

Historically, the treatment of psychosis has fallen into the realm of psychiatry. But today other mental health professionals, such as mental health counselors, occupy a central role in serving psychotic clients. In a recent national survey Vacc, Loesch, and Guilbert (1997) found that approximately 6% of clients treated by mental health counselors exhibit a form of psychosis. This is a sizable number of clientele, indicating that mental health counselors need adequate knowledge and skills in regard to psychosis. This professional transition may be due to three primary factors: (a) rising healthcare costs, (b) a better understanding about psychosis among helping professionals other than psychiatrists (i.e., mental health counselors), and (c) an increased diversity of services among mental health counselors. First, federal and state governments, as well as insurance companies, are reducing expenditures toward mental health care. They are requiring more cost-effective treatments and increased accountability in the mental health profession. Traditionally, psychiatrists have expected the highest reimbursement rate among helping professionals. However, most of the services needed by psychotic clients (e.g., psychosocial treatments) can be extended by mental health counselors. That is, mental health counselors have more experience with psychosocial interventions than psychiatrists. Therefore, payors are realizing that a medical doctor is not necessary when psychosocial treatments are indicated. These treatments can be provided more cost-

effectively by mental health counselors. Second, much theory and research concerning psychosis has accumulated during the past 15 years. New information regarding the diagnosis, etiology, and treatments of psychosis has recently been proposed. This new information has been presented to mental health counselors through formal education, trainings, and professional workshops. Moreover, educational standards for mental health counselors require training in the "etiology, diagnosis, treatment, and prevention of emotional and mental disorders [including the] identification of abnormal, deviant, or psychopathological behavior" (CACREP Standards, 1994, p. 79). Therefore, mental health counselors are gaining more knowledge and skills concerning the diagnosis and treatment of psychosis than ever before. This information prepares mental health counselors to effectively serve psychotic clients. Third, the profession of mental health counseling is expanding on a national scale. There are more mental health counselors and more states requiring mental health counseling licensure than at any period in the past. Therefore, there are an increasing number of mental health counselors that are available to serve psychotic clients. Overall, due to an increased quantity and quality of services, mental health counselors are more likely to treat psychotic clients than ever before.

In regard to the changing roles of mental health practitioners, recent authors have been advocating for a redefining of psychiatry which will ultimately alter the role

of psychiatrists as helping professionals. These authors predict that a new conceptualization of psychiatry will primarily emphasize diagnosis and pharmacotherapy, instead of counseling or other psychosocial interventions (Lieberman & Rush, 1996). Thus, other helping professionals, including mental health counselors, will increasingly encounter clients with psychoses. In fact, mental health counselors and other similarly trained professionals currently occupy an important role in the treatment of psychotic disorders (Kavanagh, 1992). Mental health counselors are currently seen as one of the primary professional groups who extend mental health services to psychotic clients. These services include individual counseling, group counseling, social skills training, vocational training, and adult daily living skills training. Mental health counselors may even be the most effective providers of such treatment, since mental health counselors usually obtain a broad array of educational and practical experiences. This breadth of mental health care can be provided by simultaneously using individual and group counseling, a personal growth approach, vocational counseling, and techniques involving a multicultural awareness. Such a broad treatment perspective is usually not utilized by traditional providers, such as psychiatrists. As Gabbard, Lazar, Hornberger, and Speigel (1996) explain, counseling psychotic clients using a mental health framework may decrease inpatient admissions, decrease work impairments, and increase quality of life. The authors concluded that

"[mental health] counseling appears to have a beneficial impact on a variety of costs when used in the treatment of the most severe psychiatric disorders, including schizophrenia" (p. 147). Thus, it is important for mental health counselors to understand the deficits associated with psychosis, as well as how to effectively treat this population.

One of the most important areas in the diagnosis and treatment of psychosis is 'insight,' or awareness of the mental disorder. Through direct clinical experience the writer noted how some psychotic clients demonstrated a thorough understanding of their illness while other clients showed almost none. The writer noticed that those clients who did display good insight usually also demonstrated better psychosocial skills (e.g., interpersonal skills, adult daily living skills, less severe functional impairments). Moreover, clients with good insight seemed to have a better response and outcome to treatment. This hypothesis was confirmed by a recent study which found that increased insight is related to better treatment outcome and less severe psychosocial problems (Schwartz, Cohen, & Grubaugh 1997). The writer then began to realize that degree of insight seemed to negatively correlate with severity of illness; less severe psychotic symptoms were associated with better insight. The writer conducted a pilot study to test the relationship between insight and illness. Results showed that a strong correlation was found between degree of insight

and severity of illness, especially severity of abnormal
thought content and degree of cognitive disorganization
(Schwartz, 1997). However, the relationship among insight,
illness, and psychosocial deficits has never been examined
because no prior research has included all three factors
simulateously. Psychosocial deficits describe problems which
negatively affect the client's psychological and social life.
For example, a dysfunctional family environment may be a
psychosocial impairment because it may lead to psychological
(e.g., depression) or social (e.g., interpersonal) problems.
Other psychosocial impairments may include substance abuse,
legal problems, or an inability to care for oneself. After a
thorough literature review, the writer found that additional
research in this area was warranted. Therefore, the writer
chose to study this interrelated relationship using two
validated instruments which would comprehensively measure
insight, illness, and psychosocial impairments.

Most clients who manifest psychotic symptoms are not
aware that they have a mental disorder or that they need
treatment (World Health Organization [WHO], 1973).
Relatedly, a large body of research focused on psychosis has
shown that lack of awareness of mental disorder, termed 'poor
insight,' is related to worse treatment compliance (American
Psychiatric Association [APA], 1994). In regard to general
characteristics and prognosis, evidence also supports the
contention that less insight is related to poor overall
functioning and worse treatment outcome (Amador & Strauss,

1993a). Several studies report that an association between insight, symptoms of illness, and treatment outcome may be present in psychotic disorders (Schwartz, in press). However, no empirical studies have attempted to assess all aspects of this relationship. The few existing studies on insight and psychosis have only focused on isolated aspects of this relationship. For example, some studies have concentrated only on the relationship between insight and severity of illness (e.g., McEvoy, Apperson, Appelbaum, Ortlip, Brecosky, Hammil, Geller, & Roth, 1989). Others have only investigated the association between insight and treatment compliance (e.g., Bartko, Herczog, & Zador, 1988). Still others have limited observations to the relationship between insight and relapse rates in psychosis (e.g., Heinrichs, Cohen, & Carpenter, 1985). Thus, each of these studies has only presented limited evidence concerning the relationship between insight and other aspects of psychosis. Finally, no study found to date has researched the relationship between insight and various psychosocial (psychological and social) areas. If counselors are to incorporate knowledge about insight, illness, and psychosocial skills into clinical practice, then additional research in this area is needed.

In addition, the conclusions of most previous studies on insight and psychosis have been limited by several factors. First, most studies did not use reliable and valid assessment instruments (Amador & Strauss, 1993a). Second, various (and

often unreliable) methods of diagnosis were employed. Third, research design problems (such as small sample size, non-random selection, and ratings by investigators not blind to the research protocol) were common (Schwartz, in press). Finally, previous research studies did not evaluate all pertinent demographic, symptomatic, or psychosocial variables. Additional studies in this area should use contemporary assessment instruments which assess all pertinent clinical areas with a large, generalizable client population. This study focuses on various aspects of insight and how they relate to both specific dimensions of psychotic pathology and psychosocial impairments. The purpose of this research is to expand on prior findings (a) by assessing variables not studied before, (b) by using comprehensive and validated instruments, and (c) by including a well-formulated research design. An overview of psychotic disorders, the literature on insight and psychosis, a description of the problem and need for the study, an outline of the purpose for the study, and a rationale for the approach utilized will follow.

Overview of Psychotic Disorders

Many counselors have difficulty making a reliable clinical diagnosis, even in regard to psychotic clients (McWilliams, 1994). The differential diagnosis of psychotic disorders may be difficult, especially if the individual is

not floridly psychotic during the diagnostic evaluation (Andreasen & Carpenter, 1993). However, if the clinician understands which characteristics to assess when presented with a client that may be psychotic, a diagnosis can be very reliable. In terms of the characteristic signs and symptoms of mental disorders, psychosis can be distinguished from most other illnesses. For example, other illnesses do not have psychotic symptoms as their defining features, even though many other mental disorders (e.g., dementia of the alzheimer's type, delirium, and certain substance-induced or mood disorders) may manifest vague or transient psychotic symptomatology. That is, several other disorders may have certain psychotic symptoms as components of that illness, but these psychotic components are not primary symptoms.

The term psychosis has historically received many different definitions depending on the time or the locality of origin. Even today no universally accepted definition of psychosis applies in all countries because of cultural and sociological variations. Some cultures do not view hallucinations as pathological, for example, especially if they have religious significance. Historically, the narrowest definition of psychosis included only overt hallucinations, delusions, and severe psychosocial impairments occurring for a specified length of time without the individual's awareness. A less restrictive definition may also include directly related symptoms (e.g., extreme paranoia) that may or may not occur concurrently with insight

into their pathological nature. A still broader definition also includes secondary or associated symptoms (e.g., excitement, suspiciousness, poor impulse control) and residual or 'left over' symptoms (i.e., anhedonia or low energy despite the absence of all overt psychotic symptoms). Finally, psychosis has been classified simply on the basis of functional impairment alone; for example, a mental disorder has historically been termed psychotic if grossly disorganized behaviors or lack of self care were observed (APA, 1994). Modern methods of assessment and diagnosis attempt to combine the various definitions described above by synthesizing theoretical and scientific knowledge in order to provide an international classification system that is not based on cultural idiosyncrasies (WHO, 1995). Currently, the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (APA, 1994) outlines criteria used to diagnose psychotic disorders, and these criteria are used internationally as a disease classification system.

There are several distinct types of psychosis, differentiated based on the presenting symptoms and course of illness. The most common and severe form of psychosis is schizophrenia. Other types of psychotic disorders include schizophreniform disorder, brief psychotic disorder, schizoaffective disorder, delusional disorder, shared psychotic disorder, substance-induced psychotic disorder, and psychotic disorder due to a general medical condition. psychotic disorder not otherwise specified is a residual

category used to diagnose psychosis which does not meet the criteria for any other psychotic disorder (Morrison, 1995).

There are several common symptoms associated with most psychotic disorders. These symptoms are usually separated into groups according to how they are reported or observed. The three major groups of psychotic symptoms are categorized as 'positive,' 'negative,' and 'general.' Positive symptoms are physiological reactions or observed behaviors which are 'added' to the psychotic individual's experiences. Positive symptoms are therefore additive, and include experiences such as hallucinations, delusions, and extreme grandiosity. Negative symptoms are behaviors or experiences which are 'taken away' from the psychotic individual. Negative symptomatology is depleting, and may include blunted emotions, poor abstract thought processes, or lack of fluency of speech (alogia). General psychopathology is a category of symptoms which may be experienced by any individual, but which are heightened or exacerbated in the psychotic client. Symptoms of general psychopathology involve extreme anxiety, psychosomatic fears, and poor impulse control (Kay, 1991). One of the most common symptoms of psychosis is poor insight into illness. In fact, poor insight is so common, it may be useful in subtyping psychoses (WHO, 1973). Poor insight and its associated symptoms are the primary psychotic characteristics investigated in this study.

The etiology or cause of psychosis is not fully understood. However, several studies have reported empirical

evidence concerning the genesis of this illness. Environmental and social factors have been proposed as the cause of psychotic disorders, for example. But the most scientifically supported etiological evidence comes from physiological studies. These studies focus on physical abnormalities or chemical imbalances which may cause various psychotic symptoms. Both neuroanatomical and biochemical research have found links between certain physiological anomolies and the development of psychosis. Physiological hypotheses assert that either structural anomalies (e.g, decreased or damaged brain mass) or neurochemical alterations (e.g., an excess of dopamine in the brain) cause psychotic symptoms (Kavanagh, 1992). Specifically, it is postulated that neurocognitive dysfunctions may be at the root of many psychotic symptoms. "Structural and functional neuroimaging studies suggest that the symptoms of schizophrenia [and other psychotic disorders] may be related to abnormalities in specific brain regions or brain circuits" (Miller, 1996). Even though no physiological evidence is universal in all psychotic clients, there does seem to be a strong biological link to this illness.

The treatment of psychotic disorders usually comprises several modalities due to the pervasive impairments associated with the illness. These various approaches often include pharmacotherapy (the administration of psychotropic medications), day treatment services, counseling, and case management services. The three most common treatment

approaches are (a) the prescription of antipsychotic medications (also termed neuroleptics), (b) family interventions, and (c) individual counseling. Medications attempt to decrease prominent psychotic symptoms so that psychosocial treatments can be used effectively. Family interventions usually focus on increasing relatives' coping skills, providing support to family members, reducing anxiety for the psychotic client, and providing outreach services. Individual counseling usually focuses on increasing cognitive coping mechanisms in clients, increasing functional skills and independence, and providing a safe, supportive relationship to enhance self-confidence. Individual counseling focuses on building a therapeutic relationship after which cognitive-behavioral interventions may be used to reduce symptomatology and psychosocial impairments. However, a key component in all treatment techniques is education concerning the symptoms and nature of psychosis. Severe psychotic symptoms will likely impair daily functioning, and increased insight through education and counseling may lessen or even preempt major functional impairments. With increased awareness of their mental disorder, clients may understand their experiences better and thus they may increase compliance with treatment.

Overview of Insight and Psychosis

Psychotic disorders are common in the general population, regardless of nationality (WHO, 1995), and these disorders can cause both long-term suffering for clients and extreme financial burdens on healthcare organizations. One of the most common phenomena among psychotic disorders is lack of insight into illness. International researchers have found that perhaps seventy percent of psychotic clients show moderate to severe unawareness of having a mental disorder (Amador, Flaum, Andreasen, Strauss, Yale, Clark, & Gorman, 1994; WHO, 1973). Furthermore, lack of insight is more prevalent in psychotic disorders than in other mental disorders (such as mood disorders). This fact has led some researchers to propose that poor insight should be used as a marker for subtyping the illness (Carpenter, Bartko, Carpenter, & Strauss, 1976). For example, poor insight has been termed a general symptom of psychosis (Kay, 1991) due to its prevalence and its ability to impair the psychotic client. However, insight into psychosis has not been extensively studied in spite of the fact that it is an integral component of psychological assessment techniques (Michalakeas, Skoutas, Charalambous, Peristeris, Marinos, Keramari, & Theologou, 1994). Only recently have prominent authors asserted that the nature of insight in psychosis should be studied more thoroughly (Markova & Berrios, 1995a). The term 'insight' in this study will refer to a

multidimensional construct. That is, it will be viewed on a continuum composed of three related characteristics: awareness of mental disorder, awareness of the consequences of a mental disorder (e.g., hospitalization or functional deficits), and awareness of the need for treatment (i.e., counseling and medications).

The phenomenon of poor insight in psychosis was noted when the disorder was first identified as a major mental illness (Bertschinger, 1916). Since that time, lack of insight has been linked to various dimensions of treatment compliance and outcome. In terms of treatment compliance, Bartko, Herczeg, and Zador (1988) report that less insight among psychotic clients predicted noncompliance with treatment regimens. This finding was supported by McEvoy, Freter, Everett, Geller, Appelbaum, Apperson, and Roth (1989). One can conclude that if poor insight leads to reduced treatment compliance, poorer treatment outcome will result. This is, in fact, what several researchers have found (Schwartz, in press). Increased insight is positively associated with post-hospital adjustment, better social skills after treatment, better global functioning at outcome, and fewer readmissions to hospitals. In addition, Heinrichs, Cohen, and Carpenter (1985) found that early insight into symptom exacerbations led to reduced relapse rates.

However, much of the empirical evidence supporting the relationship between insight and treatment outcome is equivocal. This is partly due to methodological limitations,

such as the use of instruments which did not assess insight on a continuum. For example, most previous research assessed insight as an all-or-none construct. Or an arbitrary measure of outcome was used (such as length of stay in treatment) without the evaluation of other pertinent variables. Moreover, among studies investigating the link between insight and illness, findings are conflicting. Again, this is largely due to difficiencies in assessment instruments and methodologies (Schwartz, in press). Several authors report that degree of insight relates to severity of illness (e.g., Bartko, Herczeg, & Zador, 1988) while others assert that no such association is present (e.g., McEvoy, Apperson, Applebaum, Ortlip, Brecosky, Hammil, Geller, & Roth, 1989). Still other investigators have found that a relationship exists between level of insight and certain psychotic symptoms but not others (e.g., Amador et al., 1994).

In terms of psychosocial functioning, the writer found no research investigating the correlation between degree of insight and psychosocial impairments. The only related study on this subject was conducted by Romney (1995). This author evaluated the relationship between 'subjective experience' (defined as perceived quality of life), certain symptoms of illness, and certain functional skills. It was found that a strong relationship existed between symptoms and subjective experience. A weak association was found between subjective experience and psychosocial functioning. The author concluded that "the nature of subjective experience needs

further clarification" (Romney, 1995, p. 405). Other authors also express the need for further scientific studies in this area (Schwartz, in press).

Theory of Insight in Psychosis

Insight, or awareness of mental disorder, can be viewed as either a 'concept' or a 'phenomenon' (Markova & Berrios, 1995a). As Markova and Berrios (1995a) explain, the concept of insight refers to a broad, indefinable, philosophical conceptualization of reality which is continually developing via an individual's intuition, emotions, thought processes, and perceptions of the world; that is, the concept of insight reflects an internal state which is constantly changing and which encompasses the individual's entire perceptual system. On the contrary, the phenomenon or construct of insight refers to a particular dimension of insight at a particular point in time which can be identified by the individual or measured by others (e.g., clinicians). One example of this construct is global insight into illness. This denotes awareness of a particular aspect of general experience (e.g., the mental disorder) at a particular time (e.g., during a clinical interview). Since the phenomenon of insight relates to a defined phenomenon at a specified point in time, it can be clinically conceived and assessed. The terms 'construct' or 'phenomenon' of insight will be used in this study to mean awareness of mental disorder as reported by a client or

assessed by a clinician at a particular point in time (i.e.,
during a clinical interview).

There are two predominant theories related to the
phenomenon of insight in psychosis, psychodynamic theory and
neurocognitive theory. Historically, the construct of
insight has been associated with psychodynamic theories of
mental functioning. Insight was first elaborated upon by
Sigmund Freud (1900/1957), and subsequently poor insight in
psychosis came to be viewed as a form of maladaptive coping
due to primitive and rigid defense mechanisms. Using this
philosophy, terms such as ' sealing over,' 'defensive
denial,' 'evasion,' and 'indifference reaction' were applied
to clients with poor insight. All of these terms refer to
psychological processes wherein the client represses or
denies specific anxiety-provoking stimuli (e.g., delusions)
(Amador & Strauss, 1993a). The client shunts the effects of
psychotic symptoms by invoking other mental constructs called
defenses. However, this theoretical perspective is often
vague and it has not been empirically substantiated, largely
as a result of the abstract nature of the philosophy and the
rigid link to one psychological theory. Thus, many
contemporary theorists and researchers have begun to focus on
more tangible evidence regarding insight in psychosis.

Most counselors, research psychiatrists, and
psychologists have altered their theory about insight in
psychosis to include the physiological correlates of poor
insight. This newer theory of insight attempts to find a

concrete and defined mechanism which links awareness of
mental disorder to other physiological aspects of psychosis.
Since the most empirically supported etiological hypothesis
of psychosis is based on physiological mechanisms, and since
most psychotic symptoms have an underlying biochemical basis
(Kavanagh, 1992), theorists are beginning to investigate the
psychophysiological etiology of poor insight in psychosis.
Currently, neurocognitive theories of insight predominate the
study of this phenomenon (Buckley, Buchanan, Schulz, &
Tamminga, 1996). In general, neurocognitive theories propose
that insight in psychosis (or the lack thereof) develops
according to similar biological pathways as other psychotic
symptoms. More specifically, certain neurological and
cognitive abnormalities that are related to the general
thought disturbance itself also play a key role in poor
insight. This could explain why some authors assert that
poor insight is simply one of many psychotic symptoms. Poor
insight may simply be a negative symptom of psychosis.
Whatever biochemical or physical anomolies lead to psychotic
symptoms, similar mechanisms may be responsible for
disturbances in insight. The mechanisms which may cause poor
insight are termed 'neurocognitive' because they are
neurologically based and they affect the cognitive (thought)
processes of the client. The ability to gain insight into
psychosis is a cognitive process which may be disturbed by
the illness itself.

This theory is supported by research which indicates that unawareness of illness in certain neurological disorders bears a strong resemblance to poor insight in psychosis. For example, medical patients presenting with organic hallucinosis show severe lack of insight into their symptoms. Organic hallucinosis is an organic brain syndrome distinct from psychosis, but researchers believe that a similar deficit process may be responsible for poor insight in this population of clients as well (Cornelius, Mezzich, Fabrega, Cornelius, Myers, & Ulrich, 1991). Investigators have also shown that poor insight is similar and related to unawareness of physiological, involuntary movements in psychosis (e.g., tardive dyskinesia). Therefore, due to the extreme nature of awareness deficits in psychosis and their similarity to unawareness in physical and organic syndromes, a neurocognitive theory of poor insight is proposed by contemporary theorists in this area.

In summary, a neurocognitive hypothesis for poor insight is proposed because poor insight may be related to the underlying thought disorder of the illness; that is, unawareness of illness may be one negative psychotic symptom. Poor insight can therefore be considered an associated symptom of illness caused by neurocognitive dysfunctions. This theory is supported by neurocognitive studies on insight. In one study, Lysaker and Bell (1994) simultaneously tested insight and performance on the Wisconsin Card Sorting Test. The authors concluded that

"subjects with impaired insight made significantly more perseverative errors and achieved fewer categories correct, a pattern of performance deficits identified with neuropsychological dysfunction in schizophrenia" (p. 656).

In their theory of insight in psychosis, Markova and Berrios (1995a) outline a specific pathway linking cognitive functions, insight, and symptoms of illness. The neurocognitive pathway of insight and psychosis proposed by Markova and Berrios (1995a) has several stages. First, the experience of 'functional insight' (awareness of a general mental disorder and its consequences) may be formed during the initial (prodromal) stages of illness. General or functional insight is formed as a pre-symptom before overt psychotic symptoms are present. During this phase, general emotional and cognitive aberrations are detected and experienced by the client. This may lead to a generalized, global awareness that a significant mental change is occurring. Next, emotional and cognitive dysfunctions are heightened and minor symptoms appear. Then, full or active psychotic symptoms evolve (e.g., hallucinations or delusions). Finally, after the active symptoms occur, individuals may gain insight into the specific psychotic symptoms related to their illness. Specific insight (e.g., insight into hallucinations or delusions) can only occur after full symptoms appear. Therefore, general or 'functional' insight (which arises before the full psychotic symptoms occur) differs from specific insight (assessed

separately after prominent symptoms are present). Differing degrees of functional deficits may result depending on the degree of insight gained and the type of symptoms manifested.

However, the interactive relationship between insight, symptoms, and functional skill deficits has not yet been empirically examined. If this hypothesized pathway is correct, then general or global insight should both precede and predict symptoms of illness and psychosocial impairments. This pathway would also support neurological research which has found that executive functions (including awareness) may be the first abilities to decline in psychosis. This study focuses on whether general insight relates to severity of symptoms and functional deficits, according to a pathway similar to that proposed by Markova and Berrios (1995a).

Statement of the Problem

The phenomenon of insight has become an area of importance for theorists and researchers studying psychosis. Recent research has shown that degree of insight in psychosis is related to treatment compliance and outcome, however the reasons for this association are not known. An in depth investigation of the relationship between insight and other psychotic symptoms may clarify past findings. For example, degree of insight may predict severity of illness, which may in turn lead to less likelihood of a positive outcome. That is, if degree of insight is more strongly related to severity

of illness than to treatment outcome, prior studies may have
failed to account for an important association. Very few
studies have attempted to investigate the relationship
between insight and illness, and none have included
associated symptoms (e.g., interpersonal skills or traumatic
stress). Therefore, more research is needed in this area
(Schwartz, in press).

A second link between insight and treatment outcome may
be the client's degree of psychosocial impairments. For
example, degree of psychosocial impairments may be an
intervening variable not accounted for in prior research.
Relatedly, unawareness of having a mental disorder may lead
to less motiviation to improve psychosocial skills. Or poor
insight could lead to less compliance with psychosocial
treatments, culminating in worse psychosocial skills. The
end result may be that degree of psychsocial impairments (due
to poor insight) predict treatment outcome. But no prior
study has assessed psychosocial impairments (e.g., legal
problems, dysfunctional family environment, inability to care
for oneself) as a link between insight and outcome. They
have only evaluated initial insight and posttest outcome
while neglecting to assess the reasons for any hypothesized
association. For example, only one study to date has
specifically focused on the relationship between functional
skills and treatment outcome in psychosis (Breier, Schreiber,
Dyer, & Pickar, 1991). Results of this study were
inconclusive. Findings showed that there was an interaction

between severity of illness and functional skills as related to outcome. But this study did not include insight as variable, and no studies have tested the relationship between insight, outcome, and psychosocial functioning among psychotic clients.

Finally, in terms of treatment outcome, there may be a complex interaction between insight, illness and psychosocial impairments. According to neurocognitive theory, for example, less general awareness may lead to worse symptoms which may in turn cause more severe psychosocial deficits. This could culminate in worse treatment outcome. This interactive relationship has not been studied previously. Therefore, the primary problem related to studies investigating insight and outcome is that prior research has not concurrently evaluated insight, illness, and psychosocial impairments. These three variables may be associated, and this interaction may account for the correlations found between insight and outcome among psychotic clients.

In a meta-analysis of all psychosocial treatment outcome studies to date, Penn and Mueser (1996) found that most psychosocial interventions increased the functional skills of clients. However, the reasons for results are unclear, partly because intervening factors (such as degree of insight into illness or severity of symptoms) were not investigated. Recent research has shown that degree of insight is related to treatment compliance and outcome, but no theory about this association has been substantiated. Thus, there are three

related problems which are researched in this study. The
first concerns the fact that the relationship between global
insight and symptoms of illness is inconclusive, despite
several studies focused on this topic. The second problem is
that the relationship between global insight and various
psychosocial skills is not known because no empirical data is
available on this subject. Third, even though clinicians
generally subscribe to the notion that more severe psychotic
symptoms lead to decreased daily functioning (Oakley &
Potter, 1997), only one study has been found which assessed
the relationship between symptoms of illness and functional
skills (Breier et al., 1991). Additionally, no prior study
has investigated the breadth of symptoms (e.g., cognitive
impairments, thought processes, anxiety level, traumatic
stress) or psychosocial areas (e.g., interpersonal skills,
family background, ability to care for self, socio-legal
problems) which are assessed in this research.

The lack of evidence concerning the relationship between
insight and illness in psychotic disorders may be due to the
conflicting and controvertial nature of previous research.
These findings are equivocal because of differences in
assessment measures, different definitions of insight, small
sample sizes, and other research design problems (Schwartz,
in press). Furthermore, all studies attempting to
investigate this relationship only assessed specific symptoms
related directly to psychosis (i.e., positive and negative
symptoms). They did not evaluate associated psychotic

symptoms (e.g., depression and anxiety) or secondary symptoms (e.g., traumatic stress) which may account for such a relationship. This study uses validated instruments, a multidimensional view of insight, a defined terminology for insight, and assessments of direct and secondary symptoms of illness.

The second problem that was addressed in this study relates to a literature review showing that no prior research has simultaneously assessed insight and psychosocial (psychological and social) variables. This relationship is important because level of psychosocial impairments may account for the missing link between insight and treatment compliance or outcome. That is, degree of insight may affect functional skills acquisition, thereby leading to a reduced ability to comply with or obtain a positive treatment outcome. For example, if a client manifests poor insight into illness, they may not be aware of other symptoms or functional impairments, and they may therefore be non-compliant with treatment which leads to poor outcome. However, if increased insight into illness is associated with less severe symptoms and less specific and global psychosocial impairments, then a further understanding of psychosis will be delineated.

Finally, the specific association between symptom categories and functional skills domains has only been investigated by Breier et al. (1991). These researchers conducted a longitudinal evaluation of outcome predictors

among psychotic clients. It was found that severity of symptoms was related to functioning at follow-up. "Increased levels of both positive symptoms and negative symptoms were significantly related to poor social and work functioning and lack of self-sufficiency" (p. 242). However, the reasons for these correlations are not fully known because other predictors of outcome (such as degree of insight) were not assessed. Therefore, Romney (1995) concluded that "there is no [valid] conceptual model for understanding the functional relationship between subjective experience and the social and clinical aspects of schizophrenia" (p. 405). It is hypothesized that certain symptom clusters may predict functioning more strongly than or independently of insight into illness. But a test of this hypothesis has not yet occurred. Therefore, this relationship must be included in any analysis attempting to evaluate the effect of insight on symptom severity or psychosocial functioning. This study assesses the relationship between various direct and associated symptoms of illness, as well as multiple psychosocial dimensions.

Due to limitations of past research as well as scant attention concerning the variables tested in this study, it is unknown (a) whether insight is related to the severity of psychotic symptoms or associated symptoms, (b) whether insight is related to severity of psychosocial impairments or to global functioning, (c) whether various demographic variables (e.g., years of treatment) are related to severity

of psychotic symptoms or psychosocial impairments, or (d)
whether symptom severity relates to psychosocial impairments
independent of insight or demographic characteristics. These
relationships are tested in this study.

Need for the Study

Despite recent interest in the effect of insight on
various aspects of psychosis (e.g., treatment compliance,
treatment outcome, and work ability), empirical studies are
scant and results are often conflicting. If the relationship
between insight, illness, and psychosocial functioning among
psychotic clients were known, there would be important
implications for the profession of mental health counseling.
Counselors could (a) better understand how poor insight
affects psychotic clients, (b) learn how to better predict
poor insight in psychotic clients, (c) understand how insight
is linked to other psychotic symptoms and psychosocial
skills, and (d) conduct additional research focused on how to
improve insight among psychotic clients. The problems
addressed in this study serve to clarify existing findings in
this area as well as expand on pertinent research by
evaluating variables not previously assessed. These benefits
would extend to the areas of theory, research, training, and
practice.

For example, an agreed upon theory about the etiology of
psychosis in general and poor insight specifically has not

been substantiated. Past theories have been based on narrow philosophical frameworks (e.g., psychodynamic theory) which could not be empirically tested. Current hypotheses also lack the empirical evidence needed to form a consensus among researchers and practitioners. This is largely because past theories differed in their definitions and assessment instruments related to insight. One goal of this study is therefore to provide additional information in regard to contemporary theories of insight, illness, and psychosocial functioning among psychotic clients. If current neurocognitive theories are confirmed, then a stronger theoretical foundation will be built. If modern neuropsychological theories are not substantiated, then other etiological hypotheses may be proposed and researched.

The information from this study may also facilitate further research in the area. The topic of insight into psychosis has recently been on the forefront of psychiatric and psychological research (Markova & Berrios, 1995b). However, validated empirical studies in this area are scant and recent investigations have been equivocal due to methodological limitations. This study may clarify and broaden prior findings, and additional areas of inquiry may be opened for other investigators. If significant relationships are found between insight, illness, and psychosocial impairments, then future researchers could study how well insight predicts other variables. Or they could further investigate the etiologies of both insight, illness,

and psychosocial deficits. If no significant findings are apparent, then research emphases could shift to account for additional variables not assessed here or elsewhere. For example, neurocognitive deficits could be assessed concurrently with insight and psychosocial impairments.

In terms of training, mental health counselors need adequate skills concerning the etiology, diagnosis, and treatment of psychosis (Vacc, Loesch, & Guilbert, 1997). Since degree of insight may be related to illness and psychosocial functioning, educating mental health counselors in this area may lead to increased effectiveness. Relatedly, this study may advance clinical knowledge about how to identify poor insight as well as how to increase insight in psychotic clients. The assessment of insight in psychosis is usually a standard practice among mental health clinicians. However, most clinical evaluations do not assess degree of awareness or breadth of awareness in regard to psychosis. This study may provide additional evidence related to the commonality of poor insight in psychosis. Furthermore, this study may lend support to the necessity of complete insight assessments during intake evaluations. If specific dimensions of insight are researched concurrently with other psychotic symptoms and functional skills, educators could extend more detailed knowledge about this mental illness to students and clients. For example, evidence may support the diagnostic utility of insight (or how it affects other disordered characteristics). A more comprehensive framework

for understanding and communicating about psychosis is
certainly necessary, especially in educational settings. If
mental health counselors are to serve psychotic clients
effectively they must be taught about the illness and its
symptoms, including dimensions of insight.

Finally, results from this study may provide clinicians
with needed skills when serving this population. The role of
educating clients about the nature of their illness and their
individual symptoms would be reinforced if positive results
were found. That is, if degree of insight was found to
associate significantly with level of functional impairments,
then increasing insight into illness may receive heightened
attention from practitioners. Or, if results concluded that
degree of insight predicted symptom severity, then
practitioners may include modifications of insight in their
interventions. Finally, results may expand on past clinical
research relating insight to treatment outcome. Therefore,
this study may lead to a more active clinical role of
insight, as practitioners would gain a clearer understanding
of the benefits of increased insight into illness.

Purpose of the Study

The purpose of this study is to examine the relationship
among insight, illness, and psychosocial functioning in
psychotic clients. Specifically, the writer tested whether
(a) degree of insight predicts severity of symptoms or

psychosocial impairments, (b) whether various demographic characteristics predict symptoms of illness or psychosocial impairments, and (c) whether symptoms of illness predict psychosocial impairments independent of insight or demographics in this population. That is, the writer tested whether insight, illness, and psychosocial variables were related, and whether certain variables account for more of this relationship than others.

Degree of insight was correlated with various symptoms of psychosis, various psychosocial dimensions, and general global functioning (to assess whether insight predicts any of these variables). Then, various demographic variables were correlated with symptoms of psychosis, psychosocial dimensions, and global functioning independent of insight (to assess whether demographic variables predict illness or functioning better than insight). Finally, symptoms of illness were correlated with psychosocial functioning independent of insight or demographic variables (to assess whether illness predicts functioning better than insight or personal characteristics). Based on theory and the limited research available on this topic, the writer hypothesized that: (a) insight will more strongly relate to psychosocial impairments than will severity of illness or demographic variables, (b) severity of illness will more strongly relate to psychosocial impairments than will demographic variables, and (c) insight will be related to severity of illness independent of demographic variables.

Rationale for the Approach

Psychosis is usually a long-term illness, and psychotic clients usually display chronic psychosocial impairments. Therefore, a poor prognosis is common among psychotic clients. However, increased insight into psychosis has been associated with better treatment outcome in this population. Some researchers propose that insight may be related to other symptoms of psychosis. Or poor insight may be a general deficit caused by global neurocognitive problems. But the relationship among insight, illness, and psychosocial deficits in psychotic clients in unknown. Therefore, the writer attempted to clarify this relationship by empirically evaluating and correlating these variables. Standardized assessment instruments and a diverse clinical population were selected to ensure reliability of measurements and generalizability of results. In this study, a non-experimental research design was used because the independent variables cannot be controlled or manipulated (Kerlinger, 1986). That is, the writer could not control the demographic characteristics, levels of insight, symptoms of illness, or psychosocial impairments manifested by psychotic clients. Also, this design incorporated a between-subjects approach since variation came from differences between subjects at a single point in time (i.e., during a single comprehensive interview) (Cook & Campbell, 1979). This research design allowed the writer to adequately test the research hypotheses

while using a large sample size with standardized procedures that can be replicated by other investigators.

In terms of research variables, after a thorough literature review the writer noted that previous studies tested the relationship between general insight and certain symptoms (depression, hyper affect, anxiety, cognitive deficits, and abnormal thought processes) but not others (e.g., traumatic stress). Since these symptoms may relate to degree of insight they were also included in this study. Since no prior study evaluated the relationship between insight and specific psychosocial impairments, the writer assessed a variety of psychosocial deficits. These included problems in interpersonal relationships, family environment, family relationships, work or school, ability to care for self, problems in adult daily living skills, socio-legal problems, danger to self or others, and security or management needs. Finally, even though previous studies assessed various demographic variables, they did not include total years of treatment. Therefore, the writer included this variable as a possible factor which may relate to other variables. In summary, the variables which will be used in this study include demographic variables, levels of insight, various symptoms of illness, and various psychosocial dimensions. These variables were selected because (a) they constitute the characteristics needed to test the research hypotheses, (b) they can be assessed reliably with instruments obtained by the writer, (c) they are rated on a

standarized continuum, which provides variability to ratings,
and (d) they assess categories not tested in prior research.
All variables will be assessed after a structured clinical
interview specifically designed to elicit all pertinent
clinical information.

The three paper-and-pencil instruments used in this
project were chosen for several reasons: (a) they are the
most recent and comprehensive instruments available in their
respective areas of inquiry, (b) they are widely used,
especially in Florida, (c) they demonstrate good statistical
qualities (i.e., reliability and validity), (d) they
demonstrate low cost to organizations, and (e) the subjects
in this study will be drawn from a community agency already
routinely using these instruments. Finally, these
instruments can be used reliably with a minimal degree of
training (Amador et al., 1994; Ward & Dow, 1994).

The participants in this study included a representative
sample of community agency clients with a DSM-IV (APA, 1994)
psychotic disorder diagnosis. Participants from this
locality were selected because (a) a large (12-county)
community agency agreed to provide data for this large-scale
study, (b) this population will generalize to other community
agency clients, (c) many different psychotic diagnoses will
be included so results will generalize to clients in the
population, (d) several different sources of clients are
available from this agency (i.e., inpatient, residential, and
outpatient clients), and (e) the different treatment settings

will provide a diverse range of insight, symptoms, and psychosocial impairments.

Research Questions

The following research questions were tested in this study: (a) does insight predict severity of illness, specific psychosocial impairments, or global functioning in psychotic clients, (b) do demographic variables predict severity of illness, specific psychosocial impairments, or global functioning in psychotic clients, and (c) does severity of illness predict specific psychosocial impairments or global functioning in psychotic clients, independent of insight or demographic variables.

Definition of Terms

In order for an empirical study to be fully understood by readers, it is necessary to operationally define significant terms. This is especially true concerning terms which have several definitions or connotations. It this study, many words may not be common in general usage, or they may describe phenomena which need clarification. Therefore, the following list of terms are operationally defined according to their meanings in this study.

Ability to care for self refers to a cluster of functional skills (or deficits), including self-care skills (cooking, cleaning), motivation to care for self, refusal to

care for self, alternative care availability, risk of neglect, and risk of harm. In this study, ability to care for self was be assessed using ratings on the FARS.

Active phase denotes a phase of illness characterized by florid signs and symptoms of psychosis. The active phase of illness may be transient or long-term, however, regardless of duration the active phase is characterized by acute psychosis.

Adult daily living skills refer to a cluster of functional skills (or deficits), including money management, meal preparation skills, personal hygiene, housing, and transportation skills. In this study, ADL skills was be assessed using ratings on the FARS.

Affect is understood as a pattern of observable behaviors which are directly related to the experience of emotion. The range of affect in an individual can be either normal, blunted, or flat (APA, 1994).

Alogia refers to an inability of spontaneity of speech or flow of conversation associated with thought disturbances (APA, 1994).

Anxiety in this study relates to a cluster of symptoms, including anxiousness (feelings of worry, distress, and agitation), tension, fear, panic, guilt, and obsessions. In this study, severity of anxiety was assessed using ratings on the FARS.

Avolition involves the inability to initiate and complete goal-directed behaviors.

Cognitive impairment in this study relates to a cluster of symptoms, including poor memory, short attention span, poor concentration (inability to focus), impaired judgment, and slow information processing ability. In this study, severity of cognitive impairment was assessed using ratings on the FARS.

Danger to others refers to a cluster of functional skills (or deficits), including violent temper, physical abuse of others, threats of harm to others, homicidal ideation (thoughts or images of homicide), and homicidal attempts. In this study, danger to others was assessed using ratings on the FARS.

Danger to self refers to a cluster of functional skills (or deficits), including suicidal ideation (images or thoughts of suicide), a suicide plan, a recent suicide attempt, a past attempt, and self-mutilation. In this study, danger to self was assessed using ratings on the FARS.

A defense mechanism is regarded as an automatic psychological process (e.g., denial or repression) that protects the individual from anxiety, perceived threat, or internal stressors (McWilliams, 1994).

Delusions constitute false beliefs about reality based on incorrect inferences or perceptions which are rigidly held despite contradictory evidence. Delusions commonly manifest as either bizarre (a delusion regarded as totally implausible), jealous (a delusion that one's partner is unfaithful), grandiose (a delusion of inflated self-worth,

power, knowledge, or control), or persecutory (a delusion of being harmed, cheated, persecuted, or conspired against) (APA, 1994).

Depression in this study relates to a cluster of symptoms, including depressed mood (sustained gloomy, hopeless, helpless feelings), feelings of worthlessness, loneliness, sleeping problems, and sadness. In this study, severity of depression was assessed using ratings on the FARS.

Diagnosis refers to a clinical description and categorization of a mental disorder based on presenting signs and symptoms of illness. In this study, all diagnoses refer to DSM-IV categorizations.

Disorientation is defined as confusion concerning the time of day, day of week, year, season, or place of location.

Disturbed thought processes in this study relates to a cluster of symptoms, including illogical utterances, delusions, hallucinations, paranoia (extreme suspiciousness despite evidence to the contrary), and loose associations (inability to coherently relate thoughts, feelings, and ideas). In this study, severity of disturbed thought processes were assessed using ratings on the FARS.

Dysfunctional family environment refers to a cluster of functional skills (or deficits), including family instability or crisis, family separation or divorce, custody problems, family legal problems, or death in the family. In this

study, dysfunctional family environment was assessed using ratings on the FARS.

Family relationship problems refers to a cluster of functional skills (or deficits), including no contact with family members, poor parenting skills, difficulty with partner, rebellious attitude toward family, difficulty with parent. In this study, family relationship problems were assessed using ratings on the FARS.

Global functioning refers to overall effectiveness in daily life, as indicated by ability to work, establish and maintain interpersonal relationships, and to cope with various psychosocial stressors without developing symptoms of physical or mental illness. Global functioning was assessed using the Global Assessment of Functioning (GAF) scale (APA, 1994).

Grandiosity refers to an inflated sense of self-worth, power, knowledge, importance, or control. Grandiosity may manifest as a delusion when it is extreme (APA, 1994).

Hallucinations are defined as sensory perceptions (hearing, seeing, touching, tasting, or smelling) which are perceived by the individual as true sensations but which do not occur due to any real, external stimulation.

A helping professional is considered an individual with specialized training in assisting others to develop improved psychological, behavioral, or social skills. In this study, helping professionals refer to psychiatrists, psychologists,

mental health counselors, and clinical social workers. This study most specifically focused on mental health counselors.

Hyper affect in this study relates to a cluster of symptoms, including extreme excitement (mania), elevated mood, sleep deficiencies, overactivity, mood swings, and pressured speech. In this study, severity of hyper affect was assessed using ratings on the FARS.

Ideas of reference refers to beliefs that random incidents or external events have a specific meaning to the person (APA, 1994).

Insight is synonomous with awareness. It is defined in clinical terms as a measurable construct or phenomenon which includes awareness of (a) having a mental disorder (i.e., a psychotic disorder as defined below), (b) the social or behavioral consequences of a mental disorder (e.g., interpersonal difficulties or the need for involuntary hospitalization), and (c) the need for treatment (i.e., medications or counseling) (Amador & Strauss, 1993a). Insight is regarded as a multidimensional construct; that is, insight varies quantitatively according to the mental state of the individual. For example, a psychotic individual may be fully aware of having a mental disorder in general while being only partially aware or completely unaware of a particular, specific symptom of illness (e.g., a delusion). Moreover, both types of awareness fluctuate depending on internal and environmental characteristics. Degree of insight was measured according to ratings on the Scale to

Assess Unawareness of Mental Disorder (SUMD) (Amador, Strauss, Yale & Gorman, 1991).

Interpersonal problems refers to a cluster of functional skills (or deficits), including poor social skills, problems with friends, difficulty establishing or maintaining relationships, and lack of social support network. In this study, interpersonal problems were assessed using ratings on the FARS.

A mental disorder is defined as a clinically significant behavioral and psychological syndrome in an individual which is associated with significant subjective distress, occupational or social impairments, or the imminent likelihood of suffering significant distress or global impairment (APA, 1994).

Prodromal phase denotes an early phase of illness characterized by minimal or minor signs or symptoms (pre-symptoms) which occur before the active phase of illness (APA, 1994).

Psychosis is used as a noun which identifies certain signs and symptoms exhibited by individuals within a class of mental disorders named psychotic disorders. The specific syndrome and characteristics associated with psychosis differentiate various types of psychotic disorders. The different psychotic disorders identified in DSM-IV include schizophrenia, schizophreniform disorder, brief psychotic disorder, schizoaffective disorder, delusional disorder, shared psychotic disorder, substance-induced psychotic

disorder, psychotic disorder due to a general medical condition, and psychotic disorder not otherwise specified. Each specific psychotic disorder may have an associated pathogenesis, course, familial pattern, or treatment selection (APA, 1994).

Psychosocial impairments refer to any problem in psychosocial functioning (see below) which negatively affects or interferes with the individuals daily life. In this study severity of psychosocial impairments range from no problem, to slight problem, to moderate problem, to severe problem, to extreme problem as rated by the Functional Assessment Rating Scale (FARS) (Ward & Dow, 1994).

Psychosocial functioning describes the degree of psychological and social effectiveness observed by a clinician or reported by a client at a particular point in time. In this study, psychosocial functioning includes the cluster areas of interpersonal problems, dysfunctional family environment, work or school problems, ability to care for self, degree of dangerousness to others, family relationship problems, degree of socio-legal problems, adult daily living (ADL) skills, degree of dangerousness to self, and security or management needs. Each cluster area encompasses several distinct symptoms grouped together.

Psychotic is considered an adjective referring to a person exhibiting specific signs and symptoms of psychosis. Generally, the term psychotic identifies an individual who does not perceive the world according to consensual reality.

Residual phase denotes a phase of illness which is characterized by attenuated signs and symptoms which occur after the active phase of illness has subsided (APA, 1994).

A (psychological or psychiatric) sign refers to an objective, observable manifestation of a pathological condition (e.g., hostility or restlessness). Since signs are objectively measured, they are noted externally by clinicians (APA. 1994).

Security or management needs refer to a cluster of functional skills (or deficits), including suicide watch, need for restraints during hospitalization, need for seclusion, escape risk, or involuntary commitment. In this study, security or management needs were assessed using ratings on the FARS.

Socio-Legal problems refer to a cluster of functional skills (or deficits), including disregard for rules, offenses against persons or property, probation, pending charges, and dishonesty. In this study, socio-legal problems were assessed using ratings on the FARS.

A stressor is defined as a life event or experience that may be associated with the onset or exacerbation of a mental disorder (APA, 1994).

A (psychological or psychiatric) symptom refers to a subjectively experienced manifestation of a pathological condition (e.g., a hallucination). Due to their subjective nature, symptoms are reported by clients rather than observed by clinicians (APA, 1994). In this study, symptoms included

the cluster areas of depression, hyper affect, cognitive impairment, traumatic stress, anxiety, and disturbed thought processes. Each cluster area encompassed several distinct symptoms or descriptors grouped together. Severity of symptoms ranged from no problem, to slight problem, to moderate problem, to severe problem, to extreme problem as rated by the Functional Assessment Rating Scale (FARS) (Ward & Dow, 1994).

A <u>syndrome</u> is considered a group of signs and symptoms which together identify a mental disorder or group of related mental disorders (APA, 1994).

<u>Traumatic stress</u> in this study related to a cluster of symptoms, including reports of past trauma, nightmares, dissociation (detachment from emotions and experiences), avoidance of fearful stimuli, amnesia concerning traumatic periods, and chronic upsetting memories. In this study, severity of traumatic stress was assessed using ratings on the FARS.

<u>Work or school problems</u> refer to a cluster of functional skill deficits, including tardiness, absenteeism, poor performance, suspension or termination, and not employed or in school. Work or school problems were assessed using ratings on the FARS.

Overview of the Remainder of the Study

The remainder of this study consists of four chapters, divided according to content. Chapter 2 presents a review and analysis of the related literature. Chapter 3 gives a description of the methodology used in this study. The results are presented in Chapter 4. Chapter 5 includes a description of the conclusions, implications, and recommendations for further research.

CHAPTER 2
REVIEW OF THE RELATED LITERATURE

Introduction

This chapter presents a summary and a description of
literature pertaining to the topic of insight and psychosis.
Specific, this chapter focuses on research and literature
pertaining to the relationship between insight, illness, and
psychosocial functioning among clients presenting with
psychotic disorders. Included in this chapter are a
description of the rationale and need for this study, an
overview of the diagnoses, causes, and treatment of psychotic
disorders, a summary of literature related to insight and
psychosis, a review of research focused on insight into
psychosis, a theoretical basis for linking insight to
symptoms of illness and psychosocial functioning, support for
the assessment instrument used in this study to test insight,
and a summary of the related literature.

Rationale and Need for the Study

There are several distinct categories of psychotic
disorders. These categories differ according to specific
diagnostic criteria, based on the presenting symptoms and
course of illness (Morrison, 1995). The most common and

debilitating psychotic disorder is schizophrenia, which has a lifetime prevalence rate of approximately one percent. However, other psychotic disorders (e.g., schizoaffective disorder) may also occur at a similar rate (APA, 1994). Statistics documenting the prevalence and course of psychosis indicate that this form of mental illness usually causes long-term and pervasive impairments regardless of the individual's background or nationality (WHO, 1995). Moreover, the chronic nature and early onset of many psychotic disorders, especially schizophrenia, compound the economic costs of this mental disability. In the United States, individuals suffering from schizophrenia alone reportedly account for eighty-five percent of the total treatment costs of all mental illnesses (approximately twenty billion dollars annually) (Talbott, Goldman, & Ross, 1987). And these statistics do not account for the treatment costs of other psychotic disorders, the indirect costs to society (e.g., loss of labor and earned income), or rising healthcare costs. Researchers and clinicians therefore have attempted to assess, evaluate, and treat the symptoms of psychosis during the early stages of illness. Or, if preventive care and early interventions are not possible, practitioners attempt to reduce relapse rates within this vulnerable population. However, due to the heterogeneity of psychotic symptoms, it is often difficult for clinicians to determine exactly which psychotic symptoms should comprise the primary treatment focus. Therefore, mental health professionals

routinely assess many possible psychotic symptoms in order to determine which ones are the most problematic for the client.

One of the most common characteristics of psychosis is lack of insight into illness. Unawareness of mental disorder may even be a symptom or deficit associated with this group of mental disorders (Amador & Strauss, 1993a). For example, Amador and Strauss (1993a) report that sixty percent of clients with psychotic disorders manifest moderate to severe unawareness of having a mental disorder, a statistic supported by earlier research (WHO, 1973). In fact, empirical evidence suggests that poor insight may have significant diagnostic or nosological implications (Amador, Strauss, Yale, & Gorman, 1991; WHO, 1973). A review of literature on insight shows that increased insight is associated with better treatment compliance and outcome, while poor insight into psychosis is related to poorer prognosis, higher relapse rates and poorer work-related skills (Schwartz, in press). Assessing insight is also important when evaluating severity of illness and suicidal risk (Markova & Berrios, 1992). Therefore, the study of insight in psychosis may be one of the most important areas of focus in regard to reducing the profound deficits associated with psychotic symptoms. As DSM-IV states, "lack of insight [in psychosis] is common and may be one of the best predictors of poor outcome, perhaps because it predisposes the individual to noncompliance with treatment" (APA, 1994, p. 279).

However, even though insight may be related to other dimensions of psychosis, the etiology and role of insight is poorly understood (Amador et al., 1991; Markova & Berrios, 1992). Specifically, researchers have not clearly described the relationship between insight and other symptoms of psychosis or the functional impairments associated with insight. As Schwartz (in press) explains, there may be a strong relationship among degree of insight, symptoms of illness, and treatment outcome. However, prior results are equivocal due to unreliable assessment instruments and methodological limitations.

Few studies have been conducted on insight and symptoms of illness in psychosis. These studies are conflicting, as some indicate a relationship while others do not. But most of these studies did not use standardized instruments, so results are equivocal. Furthermore, none have used multiple regression analyses to test their findings. Multiple regression analyses would have led to more detailed results. In terms of the relationship between insight and psychosocial impairments, no studies are available. In regard to the relationship between symptoms of illness and psychosocial functioning, only one study has been found. But this study did not use multiple regression analyses to compute findings. Finally, no research has concurrently evaluated insight, illness, and psychosocial functioning. These three interrelated areas of psychosis (insight, illness, and functioning) should be researched so the mental health field

can better understand how to assess and treat psychotic clients. Therefore, further description and analysis of insight into psychosis is needed in order to synthesize prior findings. If there is a relationship between insight, illness, and functioning, then further research should clarify this relationship using standardized, empirical methods. And more sophisticated data analytic techniques are necessary to understand these relationships fully. "Since insight into illness seems to play an important role in the diagnosis and treatment of patients with Schizophrenia [and other psychotic disorders], an increased effort toward research in this area is clearly warranted" (Schwartz, in press, p. 23). This empirical study attempts to expand on previous findings by utilizing contemporary assessment instruments with a large, diverse clinical population evaluated using standardized instruments not combined in previous research.

Diagnosis and Treatment of Psychosis

According to DSM-IV (APA, 1994) and other research literature focused on psychotic symptomatology (Goodwin & Guze, 1996; Townsend, 1996) mild, transient symptoms of psychosis may occur in any individual. These mild symptoms may be due to a variety of intrapsychic or environmental factors (e.g., psychoactive substances, lack of sleep, physical illnesses, or traumatic stressors). However,

clinically diagnosed psychotic disorders are also common among the general population of most countries. For example, the lifetime prevalence rate of any psychosis (i.e., the chance of a particular individual being diagnosed with a psychotic disorder in their lifetime) is approximately two percent (WHO, 1995). Moreover, the lifetime prevalence rate of contracting a long-term and pervasive psychotic disorder (such as schizophrenia) is at least one percent (WHO, 1995). And since psychosis can lead to significant personal distress, long-term global impairment, and costly treatment regimens, the need for early diagnosis and treatment of psychosis is of paramount importance for the helping professions (Townsend, 1996).

It may be difficult to accurately diagnose a psychotic disorder because of the multitude of symptoms that may occur during a psychotic episode. In addition, since many of the prominent psychotic symptoms (e.g., excitement, depression, grandiosity, hostility, passivity, restlessness) may also occur as a result of other mental disorders, a clinical syndrome uniquely associated with psychosis has not been reliably identified (Andreasen & Carpenter, 1993). For example, Morrison (1995) explains that several other common mental disorders may masquerade as psychosis, including specific phobia (some phobic behaviors may appear bizarre without being psychotic), mental retardation (this disorder may cause individuals to act or speak in a bizarre manner), somatization disorder (these individuals may report

pseudodelusions or pseudohallucinations), and factitious disorder (these individuals may feign hallucinations or other psychotic symptoms to obtain care or treatment). Other clients may present with true psychotic symptomatology which are secondary to another illness (and therefore they are not categorized as psychotic disorders). These disorders include mood disorders with psychotic features (e.g., major depression with transient hallucinations or mood-congruent delusions), cognitive disorders with psychotic features (e.g., dementia or delirium with secondary delusions), and various personality disorders (e.g., Borderline Personality Disorder) (APA, 1994; Morrison, 1995). Researchers also note that most persons with a psychotic disorder (perhaps eighty percent) also have another co-occurring mental disorder (Clark, Watson, & Reynolds, 1995). Therefore, it is often difficult for clinicians to distinguish and separate mild or moderate psychotic symptoms. Finally, heterogeneity among specific psychotic diagnoses often hinders accurate classification (Clark, Watson, & Reynolds, 1995). However, despite the lack of diagnostic certainty in regard to psychotic symptoms, several clinically distinct and conceptually differentiated psychotic disorders have been identified.

Schizophrenia, the most common and severe psychotic disorder (Kavanagh, 1992), is generally characterized by at least six months of prodromal (early), active, or residual psychotic symptoms, including at least two of the following

symptoms lasting for a period of at least one month:
delusions, hallucinations, disorganized behavior,
disorganized speech, or negative symptoms (e.g., flat affect,
lack of volition, lack of spontaneity or flow of
conversation). These symptoms occur in the absence of
severely manic or depressive episodes, and they are not
caused by substance abuse or a medical condition. There are
five subtypes of schizophrenia (paranoid, disorganized,
catatonic, undifferentiated, and residual) which are
differentiated according to the primary psychotic syndrome
(APA, 1994).

Schizophreniform disorder is a diagnostic category for
people who meet all of the diagnostic criteria for
schizophrenia, except that they have been ill for only one to
six months. Individuals with brief psychotic disorder also
meet similar criteria as schizophrenia and schizophreniform
disorder, however their symptoms only last between one day
and one month (APA, 1994). Thus, psychotic diagnoses not
only depend on symptomatology, but the length of illness as
well.

A related mental illness, schizoaffective disorder, is
characterized by all of the primary symptoms of schizophrenia
(including the same minimum time duration). But these
symptoms occur with the addition of a concurrent mood
disorder (e.g., major depression) that lasts for a
significant proportion of the entire psychotic illness.
delusional disorder is a type of psychotic disorder

characterized only by non-bizarre delusions (without other symptoms of psychosis); delusions are termed non-bizarre if they are conceivable in consentual reality (e.g., being persecuted by other individuals, as opposed to being abducted and physically altered in a significant way by extra-terrestrial life forms). Substance-induced psychotic disorder includes prominent psychotic features (hallucinations or delusions) which are the direct result of substance intoxication or withdrawal. psychotic disorder due to a general medical condition may manifest as virtually any type of psychotic symptom, but this psychotic disorder is directly caused by a physical illness or dysfunction (e.g., a virus or a head injury). Finally, psychotic disorder not otherwise specified is diagnosed when florid psychotic symptoms are present which do not meet the (duration or symptom) criteria for any other psychotic disorder (Wing, 1992). All of the disorders described above must cause significant personal distress or social and occupational dysfunction for the client. Additional information, such as associated symptoms and differential diagnosis, is described in more detail elsewhere (APA, 1994; Morrison, 1995; Townsend, 1996).

Certain symptoms of psychosis have been extensively researched and reliably classified. These symptoms involve a range of cognitive and emotional dysfunctions that affect perceptions, rational thinking processes, language and communication, overt behaviors, attention, volition, and

hedonic capacity (APA, 1994). Even though no single symptom
defines the entire spectrum of psychosis, a diagnosis
involves the assessment of a constellation of signs and
symptoms that collectively describe a specific psychotic
syndrome (e.g., schizophrenia versus delusional Disorder).

> Characteristic symptoms [of psychosis] may be
> conceptualized as falling into two broad categories --
> positive and negative. The positive symptoms appear to
> reflect an excess or distortion in normal functions,
> whereas the negative symptoms appear to reflect a
> diminution or loss of normal functions. (APA, 1994, p.
> 274)

Positive symptomatology includes distortions or exaggerations
of thinking (delusions), altered sensory perceptions
(hallucinations), disorganized speech, and odd behaviors
(catatonic features). These are physiological reactions or
behaviors which are not experienced by the average person.
Negative symptomatology may include restrictions in emotions
(affective flattening), loss of fluency of speech (alogia),
and lack of goal-directed behaviors (avolition). Therefore,
negative symptoms are behaviors or feelings which the average
person can experience but which are diminished in psychotic
individuals. In addition to positive and negative symptoms,
several forms of general psychopathology have been recognized
in psychosis. These include, but are not limited to, poor
impulse control, preoccupations, ideas of reference,
somatization, and depression.

One of the most common general characteristics of
psychosis is lack of insight. In fact, poor insight has been
identified in up to seventy percent of clients with psychotic

disorders (Amador & Strauss, 1993a; WHO, 1973). Furthermore, poor insight is reportedly more common in psychotic disorders than in other mental disorders (such as mood disorders) (Amador, Flaum, Andreasen, Strauss, Yale, Clark, & Gorman, 1994). And several authors assert that lack of insight into psychosis should be included as a diagnostic criterion for the disorder (Amador, Strauss, Yale, & Gorman, 1991). This view is strengthened by the fact that both psychiatric (Goodwin & Guze, 1996) and psychoanalytic (McWilliams, 1994) assessment techniques routinely evaluate degree of insight as part of standard diagnostic procedures. Table 1 lists common symptoms associated with the psychotic disorders outlined above.

Table 1. Common Symptoms Associated With Psychosis_

Positive Symptoms	Negative Symptoms
Delusions	Blunted Affect
Disorganization	Emotional Withdrawal
Hallucinations	Poor Rapport
Excitement	Social Withdrawal
Grandiosity	Poor Abstract Thought
Suspiciousness	Rigid Thinking
Hostility	Alogia

General Psychopathology	
Poor Insight Into Illness	Somatization
Tension	Poor Impulse Control
Uncooperativeness	Preoccupations
Poor Attention	Anxiety/Nervousness

In terms of other psychotic characteristics, novel assessment methods have led to a better understanding of

general commonalities among psychotic clients. The most
common characteristic found among individuals with psychotic
symptoms is a pervasive but often undefinable
disconnectedness with consensual reality. That is, bizarre
ideas (usually involving some personal meaning to the
client), irrational thinking patterns, and contrived
associations between seemingly unrelated events (e.g., ideas
of reference) are common. Classic symptoms of psychosis
(hallucinations, delusions, ideas of reference, illogical
thinking) are usually apparent during overt states of
pathology as well. However, many other internal and possibly
harmful psychological characteristics are typical of
psychotic clients.

First, the defense mechanisms employed by psychotic
clients are usually rigid, primitive, and prerational
(McWilliams, 1994). Withdrawal into fantasy, denial of
reality, dissociation, and projection of internally generated
fears are commonplace. But these psychological defenses may
serve a useful function in that "they protect the psychotic
person against a level of abject dread so overwhelming that
even the frightening distortions that the defenses themselves
often create are a lesser evil" (McWilliams, 1994, p. 57).
Therefore, these (often dysfunctional) psychological defenses
may contribute to a cycle of illogical and disorganized
thought processes: (a) symptoms of psychosis lead to fears
and confusion concerning personal reality; (b) the individual
applies primitive defense mechanisms (e.g., denial) to cope

with disturbing experiences; (c) this leads to an increased disconnectedness with consensual reality and the need for more rigid defenses; and (d) finally the client is caught in an illogical dilemma that they do not understand.

Second, clients with psychotically-organized personalities usually display severe difficulties with personal identity. They often struggle with such basic concepts as body image, age, gender, sexual orientation, and personal existence itself. When asked to describe themselves or others, for example, they tend to reply in vague, tangential, and observably distorting terms. This trait may be due to deficits in abstract thought. Or other cognitive impairments (e.g., problems with executive functioning) may contribute to a lack of solid identity.

Finally, psychotic individuals live with constant fear of the world and their own psychological confusion. They often fear that they have lost their past achievements, that they may not be able to control their present reality, and that the future may bring more severe problems (e.g., increased isolation, loneliness, and more severe relapses). For example, one psychotic client expressed that living with this type of mental disorder is like being adrift in an anchorless reality. The client feels that having a psychotic disorder can be extremely painful emotionally.

> It is a journey through a world that is deranged, empty, and devoid of anchors to reality. You feel very much alone. You find it easier to withdraw than cope with a reality that is incongruent with your fantasy world. You feel tormented by distorted perceptions. You cannot

distinguish what is real from what is unreal. (Jordan, 1995, p. 501)

Due to the psychological toll on individuals suffering from psychosis, much effort has been focused on preventing the disorder by identifying the fundamental causes of psychotic symptoms. But the exact etiology of psychosis is not fully known. Several hypotheses have been partially substantiated by empirical evidence, however. Causal hypotheses for the genesis of schizophrenia and other psychotic disorders range from harmful life events and social factors (Bebbington & Kuipers, 1992) to genetic predispositions (Read, Potter, & Gurling, 1992), biochemical alterations (Owen & Cross, 1992), and neuroanatomical dysfunctions (Jernigan, 1992). The first hypothesis involves life events and social factors. Some evidence points to social circumstances that are related to the emergence of psychotic symptoms. This hypothesis assumes that psychotic clients are hypersensitive to the social environment. For example, the predominant hypothesis concerning the social etiology of psychosis focuses on evidence about the effects of expressed emotion in the environment (Bebbington & Kuipers, 1992). Increasingly sophisticated corroborative studies have shown that high expressed emotion, such as overprotectiveness, overintrusiveness, and an overcritical or demanding environment (particularly parents) can exacerbate symptoms of psychosis. Moreover, relapse rates are higher among clients returning to living environments with high expressed emotion (Bebbington & Kuipers, 1992). Studies have

also reported that relapse rates are lower in developing (Eastern) countries where a more supportive extended family is commonplace (Leff, Berkowitz, Sharit, Strachan, Glass, & Vaughn, 1989). However, even though most studies of expressed emotion have found positive results, several show no predictive value (Kottgen, Sonnichsen, Mollenhauer, & Jurth, 1984; McCreadie & Phillips, 1988; Parker, Johnston & Hayward, 1988). This discrepancy could be the result of methodological problems which cast doubt on many studies in the area. For example, lack of standardized assessments, poor case definition methods, imprecise dating of events, lack of objective ratings of situational impacts, and lack of control groups may limit or even invalidate previous findings (Bebbington & Kuipers, 1992).

A second etiological hypothesis concerns neuroanatomical factors as the basis for psychotic pathology. This hypothesis assumes that physical or structural anomalies in the brain cause functional deficits and psychotic symptoms. Rather than social factors, therefore, anatomical patterns may identify psychological abnormalities specific to psychosis. Researchers prescribing to this hypothesis hope to find structural problems in brain mass which could lead to useful neurobehavioral models of treatment. Most evidence for the neuroanatomical hypothesis has developed from studies of autopsy material. For example, post mortem research has found that disorganization of the normal pattern of brain cells (Kovelman & Scheibel, 1984), irregularities in gray

matter (Jakob & Beckmann, 1986), and limbic system anomalies (Benes & Bird, 1987) are common in psychotic clients. Benes and Bird (1987) found smaller, more widely-spaced neurones with excessive axons in the cortex of psychotic individuals. A slight overall reduction in volume and brain weight in psychotic persons has also been reported (Roberts & Bruton, 1990). Contemporary assessment methods, such as x-ray computed tomography (CT) and magnetic resonance imaging (MRI), have also confirmed many of these findings with even more specificity. Several brain CT examinations, for example, have shown cerebral and cerebellar atrophy in living clients with psychotic symptoms (Heath, Franklin, Walker, & Keating, 1982). However, most neuropathological studies of psychosis have yielded equivocal or conflicting results (Roberts & Bruton, 1990). These studies often suffer from lack of objective methods and an incomplete scientific understanding of brain functions and processes. Furthermore, in general "the gross structure of the brain is remarkably normal in most schizophrenic patients, and no consistent structural aberration, at any level of anatomical analysis, has been found" (Jernigan, 1992, p. 97).

The third and most scientifically substantiated etiological hypothesis is the biochemical hypothesis of psychosis. The biochemical hypothesis may even connect other hypotheses (genetic, anatomical, and behavioral) to account for the common symptoms of psychosis. That is, whether the psychotic process originates from environmental, genetic, or

structural abnormalities, a biochemical correlate is usually found (Owen & Cross, 1992). The possibility that increased seratonin has a central role in psychotic symptoms was proposed by Wooley and Shaw (1954). These authors recognized long ago that lysergic acid diethylamide (LSD) caused psychotic symptoms. This theory was later confirmed by observations that LSD acts as a seratonin agonist (enhancer) (Aghajanian, Foote, & Sheard, 1970) while many antipsychotic medications reduce the effects of seratonin in the brain (Owen & Cross, 1992). A second body of evidence for a biochemical cause of psychosis arises from the fact that dopamine-releasing drugs (e.g., amphetamines) cause symptoms similar to the paranoid type of Schizophrenia (Randrup & Munkvad, 1966). From this evidence came the suggestion that an excess of dopamine in the central nervous system causes psychosis. Recent pharmacological research has broadened the consensus that either dopamine is heightened or that dopamine receptors are hypersensitive in clients with psychoses (Owen & Cross, 1992; Risch, 1996). Therefore, all contemporary pharmacological treatments of psychosis have some basic underlying effect on biochemicals in the brain.

The treatment of psychosis depends largely on either the etiological basis for the illness or the presenting symptoms; that is, the mental health treatment is determined by what types of psychotic symptoms the client manifests as well as the daily impairments resulting from these symptoms. Due to the variety of theoretical literature about psychotic

etiology and how to treat psychotic clients, many psychosocial interventions have been proposed. However, despite the diversity of treatment techniques, several fundamental attributes are noted among effective practitioners.

When treating clients manifesting a psychotic disorder, it is important to convey certain essential skills. As Greben (1984) explains, six essential attributes that characterize an effective helping professional are: empathic concern, respect for the client, realistic hopefulness, self-awareness, reliability, and strength. Empathic concern or empathic understanding is often valued as one of the most critical skills of helping professionals (Rogers, 1957; McWilliams, 1994). Empathy is a word that means to 'feel with' rather than to 'feel for,' which constituted the original reason for distinguishing between empathy and sympathy (McWilliams, 1994). It can be argued that the communication of empathy is even more vital with psychotic clients than less disturbed individuals because these clients often believe that nobody understands or cares about their personal experiences. Respect for the client and their personal struggle is also important, especially with clients exhibiting psychotic symptoms. These individuals are often treated as diagnoses or illnesses (e.g., 'a Schizophrenic') rather than as suffering, fearful human beings. Realistic hopefulness in treatment is often a difficult skill to possess among practitioners who work with psychotic clients.

This group of clientele generally progress in treatment at a slow rate which often includes several episodes of relapse. In fact, results of meta-analyses on treatment outcome in psychosis indicate that on average only forty percent of psychotic clients show considerable improvement after six years of psychosocial treatment (Hegarty, Baldessarini, Tohen, Waternaux, & Oepen, 1994). So using realistic hopefulness is essential because conveying false hope or attempting to utilize interventions too quickly may actually lead to demoralization and relapse.

Self-awareness is regarded as desirable for all helping professionals in order to both understand personal reactions to clients and to facilitate an effective and productive therapeutic relationship (Slakter, 1987). And this skill may be even more important when working with psychotic clients because of the powerful countertransference reactions they can evoke in clinicians.

> Countertransference is an integral part of the treatment of schizophrenics, perhaps the most important part. Understood, it is our biggest asset, frequently our only guide. Ignored or unrecognized, countertransference may be our biggest stumbling block. (Savage, 1987, p. 115).

The most common types of countertransference with psychotic clients are feelings of omnipotent control, parental fantasies, and intense sympathy or compassion. This is largely due to the chronic, helpless presentation of many psychotic clients (Savage, 1987).

Reliability in the treatment process is also a crucial skill when attempting to serve this population. Psychotic

clients are generally confused and disorganized psychologically. Therefore, structure and consistency is therapeutic. It is often noted by clinicians how psychotic clients are more emotionally sensitive than the average person. Providing emotional and physical safety is therefore crucial for an effective outcome. Therapeutic reliability constitutes part of this trust-building process (McWilliams, 1994). Finally, strength of character and commitment are necessary qualities when working with psychotic clients. It is often difficult to remain objective, empathic, and consistent on an ongoing basis with this type of clientele. And burnout rates are high among helping professionals serving this population. Personal strength and dedication are thus necessities for effective, long-term care.

In terms of specific interventions used with psychotic clients, treatment usually includes several modalities combined to ensure continuity of care. This is largely due to the variety of symptoms, psychological deficits, and functional impairments associated with psychotic disorders. In addition, different methods of prevention, early intervention, and rehabilitation are often employed, depending on the stage of illness and the needs of the individual at any given time. These modalities may be composed of hospitalization, day treatment programs, supported housing or residential treatment, outpatient treatment, family counseling, or case management services (Kavanagh, 1992).

The three most common forms of treatment include psychotropic medications, family therapy, and individual counseling. Psychotropic medications (also called neuroleptics) are used primarily to reduce the most severe psychotic symptoms (such as hallucinations) so that psychosocial interventions can be utilized more effectively. Traditional or 'first generation' neuroleptics work via reducing the quantity or impact of dopamine in the brain. Several of these medications (e.g., Haloperidol and Fluphenazine) can be injected into the bloodstream when clients are resistant to oral medications. Most traditional antipsychotic drugs cause irritating and possibly harmful side effects (e.g., photosensitivity, restlessness, dry mouth, and constipation). Newer neuroleptics, such as Clozapine, Risperidone, and Olanzapine, serve to reduce seratonin in the brain, in addition to reducing dopamine. Moreover, these modern antipsychotics focus on more specific parts of the brain, such as the limbic system, while minimally affecting less important brain structures (Marder, 1992). This more specific neurological action leads to less severe side effects on average. But, even though these newer drugs seem more effective, side effects are still common and many people do not benefit from these medications. For example, Kane (1989) reports that approximately ten to twenty percent of clients fail to demonstrate substantial improvement when they are treated with neuroleptics. Therefore, they will require more intensive long-term care

and psychosocial treatments. It is asserted by leading psychiatrists that the key component of medication adherence and effectiveness is education about symptoms and the (positive and negative) effects that these drugs have on the person's mental disorder. As insight increases, compliance usually also increases.

Family interventions primarily focus on improving the relationships of family members living with a psychotic relative. While certain questions remain in regard to which aspects of family interventions improve the client's environment and functioning, several commonalities among family interventions are noted. Family interventions usually serve to reduce expressed emotion in the family environment. This is a mechanism for reductions in symptoms and relapses (Leff, Kuipers, Berkowitz, & Sturgeon, 1985). Or, if this method is not productive, a reduction in family contact (especially during times of crisis) is sought through supplying alternative sources of social support. Providing means to help lessen symptom exacerbations is also common, wherein family members are taught communication, coping, and outreach skills (Falloon, Boyd, & McGill, 1984). Finally, family-based approaches also attempt to increase available information about psychosis. With a better understanding of the symptoms and experiences affecting the psychotic relative, family members can empathize more fully and more easily identify changes in symptoms. The fundamental component of family treatments is therefore increased

knowledge about all aspects of mental illness (Kavanagh, 1992).

Individual counseling is also a necessary and effective treatment approach with psychotic clients. Counseling is usually supportive in nature, focusing on present concerns (i.e., current stressors) while building a strong, trusting relationship. "Supportive psychotherapy is probably the most common form of psychotherapy used for patients in acute crisis situations and for those with more chronic psychopathology" (Conte, 1994, p. 494). The fundamental premise of supportive counseling is to prevent relapses by forming a solid therapeutic relationship, by increasing cognitive coping mechanisms, and by strengthening psychological defenses. This is accomplished by focusing on conscious material, openly acknowledging and accepting the client's adaptive repertoire, encouraging positive behaviors, suggestion and advice when appropriate, allowing ventilation, providing limit setting and reality setting, by giving reassurance, by serving as a model for effective communications and behaviors, and by educating the client about their mental disorder (Conte, 1994). This last aspect of counseling, education concerning the client's symptoms and mental illness, is regarded as crucial for an effective outcome (McWilliams, 1994). If a client is aware of their symptoms they can more easily identify potential decompensations as well as better adapt to their environment. Understanding how psychosis affects the client themself and

their family members is a vital part of any treatment strategy. Increasing awareness of mental disorder concurrently may increase medication compliance, enhance empathy from others, improve early intervention techniques, lead to lower relapse rates, and in effect promote better overall treatment outcome (Amador & Strauss, 1993a). "The schizophrenic experience can be a terrifying journey through a world of madness no one can understand, particularly the person traveling through it" (Jordan, 1995, p. 501). Enhancing awareness of mental disorder could increase both the client's understanding of their experiences and the chances of them living a more productive life-style.

<u>Literature and Research on Insight and Psychosis</u>

<u>Literature on Insight and Psychosis</u>

Psychosis can affect virtually all areas of personal and social functioning due to the variety of symptoms which fluctuate over the course of this illness. One of the defining characteristics of psychosis is disordered thought processes (Bernhein & Lewine, 1979). These disordered thought processes may manifest as overt psychotic symptoms (e.g., ideas of reference, delusions, hallucinations, disrupted thinking) or they may be present as a more subtle, underlying deficiency. In its many forms, this impaired

ability to accurately perceive the self and the world was
described long ago by leading theorists.

> In the normal thinking process, the numerous actual and
> latent images combine to determine each association.   In
> schizophrenia [and other psychotic disorders], however,
> single images or whole combinations may be rendered
> ineffective, in an apparently haphazard fashion.
> Instead, thinking operates with ideas and concepts which
> have no, or a completely insufficient, connection with
> the main idea . . . . The result is that thinking
> becomes confused, bizarre, incorrect. (Bleuler, 1950, p.
> 22)

When the mental disorder first obscures the individual's
thinking, their cognitive processes become distorted and
confused.   Internal and environmental experiences then become
associated in a random or illogical manner.   Finally, the
person may become so involved in their own bizarre
experiences and irrational associations that they lose
awareness of their disordered thinking.   This lack of
awareness of mental disorder is termed 'poor insight.'

While the term 'insight' has had a relatively short
history, concepts such as self-knowledge and self-examination
have been traced to ancient Greek philosophy (Watts, 1987).
These authors believed that self-awareness was a useful and
practical method of solving daily problems.   In addition,
insight was thought to aid self-cultivation and the evolution
of the soul (Watts, 1987).   However, it is unclear when the
phenomenon of insight was first introduced as a clinical
construct.   What is noted among clinicians and researchers is
that scientific interest in the study of insight has recently
increased among mental health practitioners (Cuesta &

Peralta, 1994; Markova & Berrios, 1995a). This may be due to innovations in assessment techniques and also because contemporary research suggests that degree of insight is related to treatment compliance and outcome (Amador et al., 1991). However, even though past theoretical and clinical interest was apparent in various areas of mental health (especially counseling), the topic of insight into psychosis has received scant empirical attention. This lack of research in the literature on psychosis may be the result of vague and conflicting terminologies concerning the phenomenon (David, 1990).

Western practitioners were apparently interested in the effects of mental illness on self-awareness since the 19th century (Dagonet, 1881). For example, in 1823 Francis Willis asserted that no person can be considered sane until he or she voluntarily confesses all personal delusions (Hunter & MacAlpine, 1963). This interest paralleled a focus on lack of awareness of physical disorders (such as blindness), called anosognosias. In 1934 Aubrey Lewis (Lewis, 1934) remarked that insight had not received due attention in the psychological literature. This view regarding the importance of insight and the need for increased attention was shared by other noted theorists.

> Patients' self-observation is one of the most important sources of knowledge in regard to morbid psychic life; so is their attentiveness to their abnormal experience and the elaboration of their observations in the form of a psychological judgment so that they can communicate to us something of their inner life. (Jaspers, 1959, p. 420.)

Lewis (1934) did not believe that insight could be compared between individuals with different disorders, since he thought that insight could not reliably differentiate neurosis from psychosis. But he did explain that immediate perceptions (e.g., feeling a change in thought patterns) could be distinguished from secondary data (e.g., clinicians tell me that there is a change in thought patterns). Therefore, insight was described by Lewis (1934) as concerning both awareness of self-change and the subjective evaluation or judgment of that change. Lewis (1934) asserted that insight could be broken down into isolated concepts without qualifying it as a unitary (all or none) construct. He attempted to provide a definition of the phenomenon by claiming that insight referred to an internally "correct attitude to morbid change within an individual" (p. 333). But the terms 'correct,' 'morbid,' and 'change' seemingly denoted a value judgment on the part of the clinician. Thus, Zilboorg (1952) stated that among the constructs of clinical importance in psychology, the phenomenon of insight is the most confusing.

Modern theorists and researchers have attempted to develop specific, objective, measurable definitions of insight. Contemporary descriptions generally employ a broad notion of insight focused on whether the client believes that they have a mental illness and that they need treatment (Greenfeld, Strauss, Bowers, & Mandelkern, 1989). This broad definition of insight can be viewed as comprising four

distinct dimensions. The first dimension is awareness of generally disordered experiences which cause distress of suffering. Clients with awareness of this dimension of insight may report having 'an episode' or a 'nervous breakdown.' But many times they are not sure what is causing the symptoms. As one client reported, "I guess it means I have some problems. Maybe this episode happened because I feel no one loves me. Or maybe its because I have low blood sugar" (Greenfeld et al., 1989. p. 249).

A second dimension of insight includes awareness of specific symptoms of psychosis. Clients' awareness of psychotic symptoms can range from total denial to a detailed discussion of all personal experiences. As one client explains, "my husband brought me here. I have no idea why. There is no reason for me to be in the hospital. There is nothing wrong with me" (Greenfeld et al., 1989, p. 248). Other clients seem to fully understand their psychosis. As one psychotic client stated, "I become slightly paranoid. I also experience some kind of high. I then imagine all sorts of things. I think the other guys on the team are planting microphones in my bed. At times I also think that I'm special in some ways, that the radio is signaling to me" (Greenfeld et al., 1989, p. 248).

The third dimension of insight has to do with describing the causes of psychotic symptoms. For example, many psychotic clients develop highly accurate views about the etiology of their disorder. Others seem to have a partial

understanding of what causes their illness. "The main cause is family problems. We have a poor family life. Too many arguments between my parents. It could also be a lack of Lithium in my bloodstream" (Greenfeld et al., 1989, p. 149). Still others attempt to deny a specific cause of illness, or to develop a contrived answer, such as "there is no reason for my breakdown. It's like getting hit by lightening" (Greenfeld et al., 1989, p. 149).

The forth type of insight is awareness of the value a treatment. Some clients believe that they need medications and counseling, while others do not. And many times this dimension of insight is unrelated to the other dimensions. For example, a client who rates their illness as completely biological may value counseling more than medications. Or the same client may refuse all forms of treatment. Finally, a client may comply with treatment based on professional recommendations alone, particularly if they are uncertain about having a mental disorder (Greenfeld et al., 1989). These four dimensions of insight seem to be interrelated in some way, and a client may fluctuate in degree of insight on any dimension.

As Dittmann and Schuttler (1990) explain, being able to identify experiences as psychotic is an integral part of adaptation. "In addition to adapting to their external environment, psychotic clients also have to learn to adapt to their psychosis" (p. 318). However, mental health professionals do not know why some psychotic clients achieve

a high degree of insight while others do not. It is noted, however, that even though some psychotic clients show insight into their illness, this ability does not necessarily lead to effective coping strategies. Many insightful clients "try to convince themselves that the psychotic experiences were not reality and try to let these experiences go unnoticed even when they persisted" (Dittmann & Schuttler, 1990, p. 320). Or, with the intention of controlling psychotic symptoms, insightful clients may behave in accordance with them, responding to hallucinations or withdrawing from social contact. For the purposes of this study, the term 'insight' will be used interchangeably with awareness. Insight or awareness will refer to the recognition of particular experiences and causal relationships. That is, awareness will refer to the recognition of (past or current) aberrant aspects of one's psyche (i.e., symptoms of psychosis), and how these experiences have contributed to other life problems (e.g., inability to work). Degree of insight will occur on a continuum comprising these various multidimensional areas (Amador et al., 1994).

Research on Insight and Psychosis

Insight has been defined as a multidimensional construct composed of awareness of a general mental disorder, the consequences of the disorder, and a recognition of the need for treatment. Some authors also include awareness of

specific symptoms of psychosis as part of overall awareness (Amador et al., 1994; Lysaker & Bell, 1995). Even though there have only been a few past attempts to research insight into psychosis, contemporary investigators are renewing their interest in this phenomenon. In regard to psychotic disorders, "insight has recently re-emerged as an important aspect of psychopathology amenable to empirical study" (David, Van Os, Jones, Harvey, Foerster, & Fahy, 1995, p. 621). Most of these studies have focused on the relationship between insight and either treatment compliance or outcome. And although many different instruments and methodologies have been used to test these relationships, there seems to be a general consensus that increased insight leads to both better compliance and outcome in psychotic clients (Amador, Strauss, Yale, & Gorman, 1991).

In terms of general recovery from psychosis, Jorgensen (1995) followed 50 psychotic clients bi-weekly for eight weeks (or until discharge). The author identified three types of recovery: full recovery, partial recovery, and minimal recovery. After data analysis, it was found that degree of insight improved with all clients who recovered, regardless of severity of symptoms. However, those clients who had the highest recovery rate also showed the largest increase in insight. The author concluded that insight operates as a distinct component of recovery from psychosis, independent of symptoms. "Insight may actually require a psychological process, namely the awareness of the existence

of [altered] mental states" (p. 439). Therefore, global insight may lead to better recovery. This finding is supported by an earlier study on insight an hospital recovery (Roback & Abramowitz, 1979).

The findings reported above indicate that more insight is related to better recovery rates. These results are most likely linked to the fact that certain clients acknowledge various impairing symptoms of illness. These clients may be better equipped to cope with their thought disorder compared to clients without insight into their illness. In fact, not only do most psychotic clients demonstrate poor insight, most of these clients do not even recognize psychotic symptoms in other clients. This suggests a pervasive lack of insight on their part. As McEvoy, Schooler, Friedman, Steingard, and Allen (1993) explain, disagreements between mental health professionals' and clients' perceptions of mental illness suggest a global lack of insight on the part of psychotic clients. These authors presented taped vignettes of classic psychotic symptoms to both mental health professionals and psychotic clients. There was significant disagreement concerning (a) the degree to which these symptoms signified a mental illness, and (b) the degree to which clients themselves exhibited these same symptoms. In particular, these researchers found that "the failure to acknowledge conceptual disorganization, avolition-apathy, and affective blunting and the failure to view hallucinatory behavior and suspiciousness as signs of mental illness, contribute to

deficits in insight" (McEvoy et al., 1993, p. 1649). These findings may add to other studies focused on insight and outcome.

In terms of treatment outcome, McGlashan and Carpenter (1981) found that there was a significant relationship between increased insight and positive outcome. But the authors assert that, among clients showing insight into illness, it was not necessarily a positive attitude but the absence of a negative attitude about their illness and their future which correlated with outcome. Therefore, if insight is present, the absence of a conscious, negative outlook may be the most crucial factor among psychotic clients. In a more recent study of treatment outcome, McEvoy, Freter, Everett, Geller, Appelbaum, Apperson, and Roth (1989) assessed long-term clinical course among psychotic clients during a 2- to 3-year follow-up period. Clients with more insight were significantly less likely to be readmitted to hospitals. Moreover, "no significant interaction between aftercare environment and insight was found, suggesting that insight may influence outcome independently of aftercare environment" (p. 48). The authors also explain that insight was related to treatment compliance, which could account for the better outcomes observed in highly insightful clients. If insightful clients are more compliant with treatment, then a better outcome is likely.

Other authors also assert that insight is related to treatment compliance, and that this relationship may account

for findings linking insight with outcome. For example, in one early study Van Putten, Crumpton, and Yale (1976) reported that clients who routinely take all medications generally display more insight. Habitual drug-refusers demonstrate lack of insight and more severe grandiosity. "The refusal of these chronic schizophrenics to tale their medication could not be attributed to social isolation, a paranoid diagnosis, or secondary gain" (p. 1443). These findings are in agreement with other investigations during this same time period. As Lin, Spiga, and Fortsch (1979) explain, approximately fifty percent of insightful clients adhere to medications regimens, compared to only fifteen percent of non-insightful clients. In addition, more recent investigations show that noncompliant clients have significantly less feelings of illness and less awareness of their psychotic symptoms. This lack of medication compliance is associated with more severe global pathology and poorer social adjustment (Bartko, Herczeg, & Zador, 1988). As Marder (1984) explains, clients admitted to treatment facilities vary in degree of acceptance of treatment. But certain factors may predict which clients will refuse treatment. The two primary factors related to refusing treatment are usually more severe symptoms of illness and less insight (Marder, 1984).

The most contemporary research on insight and treatment adherence has focused on the relationship between insight and either psychosocial treatment compliance or outpatient

treatment counseling. For example, Lysaker, Bell, Milstein, Bryson, and Beam-Goulet (1994) examined the relationship between levels of insight and both work rehabilitation and psychosocial compliance. Poor insight was associated with fewer weeks worked and less adherence to psychosocial treatments. "Results suggest that poor insight may predict noncompliance with psychosocial treatment and may be related to a constellation of cognitive deficits" (p. 307). In regard to outpatient treatment, Cuffel, Alford, Fischer, and Owen (1996) found that insight was related to various dimensions of outpatient compliance. "Results indicate that persons with greater awareness perceived greater need for outpatient treatment and evidenced better adherence to outpatient treatment when adherence and awareness were measured concurrently" (p. 653). Certain neurocognitive deficits may also be related to insight and adherence, possibly hindering a client's ability to comply with treatment (Cuffel et al., 1996).

Relatedly, poor insight in psychosis has been associated with a greater need for treatment. That is, those clients who display little or no insight into illness often require more intensive or long-term treatments. This greater need for treatment among uninsightful psychotic clients often results in an increased number and duration of hospitalizations (McEvoy, Freter, Merritt, & Apperson, 1993). For example, in a study of 52 hospitalized psychotic clients, McEvoy, Appelbaum, Apperson, Geller, and Freter (1989) showed

that those with lower insight were more likely to be involuntarily committed. "Committed patients were significantly less likely than were voluntarily admitted patients to acknowledge that they were psychiatrically ill and in need of treatment" (p. 13). Moreover, only in voluntary clients did insight significantly increase over the course of treatment. In fact, increased insight into illness has been shown to reduce relapse rates and hospitalizations among psychotic clients. In one study, Heinrichs, Cohen, and Carpenter (1985) found that awareness of having a mental disorder and awareness of symptom exacerbations as they are happening can preempt psychological decompensation. Trying to help clients develop early insight in the context of a therapeutic relationship is of paramount importance for the treatment of psychosis (Heinrichs, Cohen, & Carpenter, 1985). Other authors assert that insight can be improved during treatment, but that these improvements may be dependent on the degree of neurocognitive impairment exhibited by the client (Lysaker & Bell, 1995).

Another factor which may contribute to the association between insight and adherence or outcome is severity of illness. More severely ill psychotic clients may be both less insightful and less able to comply with treatment regimens due to their florid psychosis. Only four studies found to date have attempted to resolve the issue of insight as related to psychotic symptoms; results of these studies are conflicting. The first study was conducted by McEvoy,

Apperson, Appelbaum, Ortlip, Brecosky, Hammill, Geller, and
Roth (1989). These researchers assessed insight and
psychotic symptoms in 51 clients. Even though they found
that poor insight was common among this population, insight
did not consistently relate to psychopathology. "These data
suggest that very little of the deficiency in insight seen in
schizophrenic patients is explainable on the basis of acute
psychopathological features" (p. 43). Michalakeas, Skoutas,
Charalambous, Peristeris, Marinis, Keramari, and Theologou
(1994) confirmed these results. These authors also reported
that there was no relationship between insight and illness in
psychosis. According to these findings other factors besides
psychopathology may influence insight.

     In contrast to these findings, several investigators did
find a correlation between insight and illness in psychotic
disorders. O'Connor and Herrman (1993) evaluated 41
psychotic clients in regard to insight, symptoms of illness,
and global functioning. They reported that less insight was
significantly associated with an increase in positive
symptoms and a decrease in global functioning. This finding
was supported by Takai, Uematsu, Ueki, and Sone (1992). That
is, these researchers also found that lower global insight
was related to more severe positive symptoms and less
awareness of these positive symptoms. In a third study, Kemp
and Lambert (1995) followed long-term hospitalized psychotic
clients. These authors explain that insight was related to

severity of psychopathology both at admission and at discharge.

Finally, several authors assert that insight is related to certain psychotic symptoms but not others. For example, Peralta and Cuesta (1994) found that degree of insight was negatively associated with depression and global functioning, but was not associated with anxiety or excitement. Amador et al. (1994) tested symptoms and insight among a large population of psychotic clients for a DSM-IV field study. After evaluating 412 psychotic clients, these investigators found that insight was related to some positive symptoms (delusions and thought disorder) but not others. And insight was not associated with negative symptoms. Another study demonstrated that insight was correlated with IQ, a finding which may support studies showing a strong association between insight and neurocognitive or though disturbances (Amador, Strauss, Yale, & Gorman, 1991). Most authors do, however, consistently report that no demographic characteristics are related to degree of insight. That is, ethnicity, age, gender, years of education, age at onset of illness, diagnosis, duration of illness, and number of psychosocial stressors generally do not correlate with insight (Amador et al., 1994; David, Van Os, Jones, Harvey, Foerster, & Fahy, 1995; Peralta & Cuesta, 1994). In summary, the relationship between awareness of illness and severity of psychopathology in psychosis remains unclear (Amador et al.,

1991). Thus, more research is necessary in this area (Schwartz, in press).

Another area in which additional research is necessary includes the relationship between psychosocial impairments and either insight or severity of illness. This is because the effect of insight and psychotic symptoms on psychosocial deficits is unknown. No studies have been conducted on insight and psychosocial impairments, and only one study found to date has examined how symptoms of illness impair psychosocial functioning. Breier, Schreiber, Dyer, and Pickar (1991) followed 58 chronic psychotic clients for a period of between 2 and 12 years. Symptoms of illness and psychosocial skills were assessed during this time period. Symptoms and functioning were strongly related both at admission and follow-up. "These data suggest that the development of treatments to enhance symptom reduction may have immediate and long-term consequences for improved work and social functioning and result in fewer demands on mental health resources" (p. 245). However, 'treatments to enhance symptom reduction' may center on improving insight, a variable not assessed in the study described above. Therefore, after a thorough review of all related research, the writer believes that insufficient evidence is available concerning the relationship between insight, illness, and psychosocial functioning among psychotic clients. If such a relationship is found, then a better understanding of psychosis, clinical interventions, and outcome research may

be possible. Further research which concurrently evaluates these three important areas is necessary, especially since no such study has yet been attempted.

Theory of Insight and Psychosis

If a comprehensive theory of insight and psychosis is validated, then researchers may be better equipped to investigate the causes and treatment of this disorder. Moreover, clinicians may gain a better understanding of psychosis, thereby enhancing their ability to use effective counseling methods. However, in the area of insight and psychosis there is currently no undisputed theoretical framework. The two dominant views of insight and psychosis are termed psychodynamic and neurocognitive. The psychodynamic viewpoint is based on hypotheses concerning human psychological functioning. These hypotheses originated from psychoanalytic writings. The neurocognitive viewpoint is based on biological research on the symptoms, course, and features of psychosis. This research (and the theory that developed from it) has come from mental health research professionals. These two theories are described below.

Insight has traditionally been viewed from a psychodynamic standpoint. For example, Freud (1900/1957) promoted the term directly and indirectly through a series of psychoanalytic writings. From this perspective the concept of insight encompasses a fundamental knowledge or awareness

of one's psyche. It is postulated that if this form of
insight is not attained, a deeper awareness of self cannot be
achieved. So insight was seen as awareness of certain
internal psychological dynamics. And this philosophy was
linked to a specific theoretical framework (i.e.,
psychodynamic psychology). Other psychodynamic theorists
concerned with insight followed this general philosophy.
Insight was possible via several routes, such as insight
through interpretation (Bibring, 1954), emotional and dynamic
insight (Reid & Finesinger, 1952), descriptive insight
(Richfield, 1954), and verbal insight. In general,
psychodynamically oriented professionals identify two
distinct types of insight: intellectual insight and
emotional insight (Martin, 1952; Zilboorg, 1952).
Intellectual insight refers to a person's capacity to
identify their own personality traits. Emotional insight
refers to an individual's ability to achieve an effective
understanding of unconscious motivations and conflicts.

Regardless of the nature of insight in psychoanalytic
theory, enhancement of personal awareness was regarded as
crucial to personality and behavior change. In clients with
more severe pathology, personal awareness is usually
repressed or distorted by unconscious mechanisms thought to
underlie the client's psychopathology (A. Freud, 1941).

> The pathological factor is not his ignorance in itself,
> but the root of his ignorance in his inner resistances.
> . . . Informing the patient of what he does not know
> because he has repressed it is only one of the necessary

preliminaries to the treatment.   (Freud, 1910/1957, pp. 225-226)

Insight was thought to be the curative factor in counseling instead of empathy, tolerance, or acceptance (Blum, 1979). Psychodynamic research largely focused on treatment outcomes between insight-oriented therapies versus non-insight-oriented therapies, including studies with psychotic clients (Anker & Walsh, 1961). Psychotic clients who could not gain insight (according to this perspective) were said to be 'sealed over.' That is, these clients denied the existence and severity of psychotic symptoms. In contrast, clients who did gain insight into their psychotically-organized personality were said to be 'integrated.' These clients were apparently interested in exploring their psychotic experiences in order to understand them fully (Greenfeld, Strauss, Bowers, & Mandelkern, 1989). But several major flaws in existed in conceptualizing and researching the phenomenon of insight from a psychodynamic standpoint. The term 'insight' continued to be criticized for lack of clarity, lack of consistency in meaning, and lack of reliability in research (Wallerstein, 1983). In addition, insight from this perspective must be related to the clinician's own views, and a standardized assessment of insight is therefore not possible (Greenfeld et al., 1989). Thus, insight was eventually redefined by mental health professionals in more concrete, operationalized terminology. Insight came to be viewed as reported awareness of having a

mental disorder, the consequences of this disorder, and the need for treatment.

The predominant theoretical framework of insight among contemporary mental health practitioners has to do with the underlying thought disorder itself. As described above, research attempting to link insight with treatment compliance or outcome seems to consistently find that neurocognitive deficits are an intervening factor (Amador et al., 1991). A consistent finding is that insight and neurocognitive deficits are related, and that neurocognitive deficits may lead to this thought disorder and lack of insight (Cuffel et al., 1996). Thought disorder is widely regarded as the defining feature of psychosis (Matthysse, 1996). This thought disorder can be manifested as (a) distortions in the perceptions of one's body, mental state, or environment, (b) magical and illogical thinking, (c) hallucinations and delusions, (d) or gross cognitive deficits (e.g., memory or concentration deficits). But, regardless of the type of thought disorder, from this perspective all psychotic processes have an underlying physiological basis (Matthysse, 1996). This underlying physiological basis will be termed a 'neurocognitive deficit,' since it is a dysfunction in (cognitive) thought processes which has a (neurological) biochemical etiology. For example, psychotic clients usually have severe difficulty in effectively focusing, sustaining, encoding, and shifting thought processes. These impairments are due to the underlying biological (biochemical)

dysfunctions which create the disorder (Mirsky, 1996). Lack of insight is hypothesized to be one of many cognitive impairments characteristic of psychosis. Insight in psychosis (or the lack thereof) may be based on neurocognitive dysfunctions. In fact, poor insight may be one of many characteristic psychotic symptoms (Kay, 1991).

> Yet insight cannot, for example, be compared to hallucinations or sleep disturbance. Insight is not an isolated symptom, but must be thought of as a process or continuum of thinking and feeling which cannot be separated from the persons make-up/personality or from the psychopathology of the disorder itself. (Markova & Berrios, 1992, p. 858)

Therefore, in this study insight is viewed as a multidimensional construct displayed on a continuum, and a neurocognitive etiology of poor insight will be proposed. Detailed research, literature, and theory describing this neurocognitive theory of insight is outlined below.

The purpose of considering a neurocognitive theory of insight is (a) to delineate a solid basis for why poor insight is common in psychosis, (b) to provide a link between insight and other psychotic features, (c) to describe how insight may be linked to other variables assessed in this study (symptoms of illness and psychosocial impairments), and (d) to provide a solid foundation for mental health professionals in terms of future research and practice. A client's recognition of having a mental illness is related to a certain type of self-awareness (David, 1990). And this type of self-awareness may be disrupted in psychotic clients. Modern research has linked poor insight in psychosis to

neurocognitive deficits. "Poor insight appears to be attributable to underlying cognitive impairments, particularly those of the frontal lobe region" (Buckley, Buchanan, Schulz, & Tamminga, 1996, p. 458). One source of evidence linking poor insight in psychosis to neurocognitive deficits has to do with poor insight observed in other neurological (physical) disorders. Poor insight in other neurological disorders bears a striking resemblance to poor insight in psychosis. Some medical patients display denial of physical problems. For example, following a stroke some medical patients deny that their limbs are paralyzed. Other medical patients may deny blindness or similar physical dysfunctions. But, "regardless of the etiology [of the physical problems], one thing is certain: anosognosia in neurological disorders arises directly following injury to the brain" (Amador, Strauss, Yale, & Gorman, 1991, p. 123). In organic hallucinosis (hallucinations following a physical brain injury) clients also display poor insight similar to poor insight in psychosis (Cornelius et al., 1991). These self-awareness deficits are the result of neurocognitive deficits, possibly in the right hemisphere of the brain or in the frontal lobes (Stuss & Benson, 1986). Most clients with anosognosia (i.e., unawareness of physical or neurological illnesses) have documented neurocognitive deficits. These neurocognitive deficits may be similar to anatomical or biochemical dysfunctions documented in psychotic disorders (Amador et al., 1991). McGrath (1991) asserts that thought

disorders permeate the cognitive functioning of clients. These thought disturbances disrupt executive functions primarily as a result of frontal lobe damage. This hypothesis predicts that thought-disordered clients will display some degree of impaired focusing and reasoning which may affect self-awareness (McGrath, 1991).

Other evidence for a neurocognitive basis of poor insight comes from studies specifically focused on neurocognitive deficits in psychosis. Recent studies on information and cognitive processes in psychosis have revealed that there is a breakdown in executive functioning among these clients. In psychotic clients there is an overall breakdown in communication between cortical areas of the brain. This leads to symptoms of illness and neurocognitive problems (including lack of insight) (Hoffman & McGlashan, 1993). Yurgelun-Todd, Waternaux, Cohen, Gruber, English, and Renshaw (1996) used MRI to examine cortical functions of psychotic clients versus controls. Results indicated that psychotic clients had significantly less frontal activity than controls during cognitive tasks. "These findings are in agreement with PET studies that reported reduced left frontal activation during challenge paradigms for schizophrenic patients" (p. 200). Other neurological studies confirm that pervasive neurocognitive deficits are present in psychotic clients (Flashman, Flaum, Gupta, & Andreasen, 1996).

The third (and possibly most conclusive) evidence linking poor insight to neurocognitive deficits is based on studies which specifically test degree of insight and neurocognitive impairments. David et al. (1995) found that degree of insight was related to IQ. Less insight was correlated with lower IQ. The reasons for this association were not clear, but results may be associated with a general neurocognitive factor. Lysaker and Bell (1994) examined insight as related to performance in the Wisconsin Card Sorting Test (WCST). The authors found that "when the effects of IQ were partialled out, subjects with impaired insight made significantly more perseverative errors and achieved fewer categories correct, a pattern of performance deficits identified with neuropsychological dysfunction" (p. 656). Young, Davila, and Sher (1993) also specifically tested unawareness of illness and neurocognitive performance in psychotic clients. These researchers used the WCST and the SUMD. Findings showed that WCST responses significantly correlated with degree of insight, and that WCST scores could reliably categorize 85% of clients into high versus low insight groups. Finally, results from a study by Takai, Uematsu, Ueki and Sone (1992) suggest that there is a significant correlation between insight, other symptoms of psychosis, and neurocognitive deficits (measured by MRI tests). Decreased insight was related to increased symptoms and increased neurocognitive problems. Therefore, most research supports a neurocognitive etiology of poor insight

in psychosis. However, the specific pathway in which these neurocognitive deficits lead to poor insight is not yet known (Amador et al., 1991). The pathway in which insight affects other psychotic features (e.g., symptoms or psychosocial impairments) is also unknown.

The only study found to date which attempted to correlate personal awareness with symptoms of illness and psychosocial variables was reported by Romney (1995). It should be noted that this study did not directly assess insight into illness, however it did investigate subjective experiences (i.e.., satisfaction with life and level of self-esteem). Subjective experience was then correlated with other variables, such as symptoms of illness and psychosocial functioning (employment, social support, and independent living skills). In Romney's (1995) study quality of subjective experience was hypothesized to depend on other psychotic features or preconditions (e.g., symptomatology). The author found a strong relationship between symptomatology and subjective experience, but only a weak correlation between psychosocial functioning areas and subjective experience.

> As symptomatology and intrapsychic deficits increase, self-esteem and satisfaction with life decrease and subjective distress increases. As work and social functioning increase, self-esteem increases. Finally, as social functioning increases, so does satisfaction with life. (Romney, 1995, p. 406)

The author also explains that these results are similar to medical findings in which symptoms of illness in physical

disorders and neurological dysfunctions adversely affect economic status, morale, and social relationships.

Synthesizing the results found in this study and in medical research, Romney (1995) developed a hypothesized causal pathway which combines symptoms of illness, psychosocial functioning, life satisfaction, and intrapsychic deficits (e.g., low morale, low energy, inactivity, and lack of pleasure in life). It is asserted that the quality of an individual's subjective experience will be positive or negative depending on the level of psychosocial impairments which result from their symptoms. Figure 1 outlines the pathway proposed by Romney (1995).
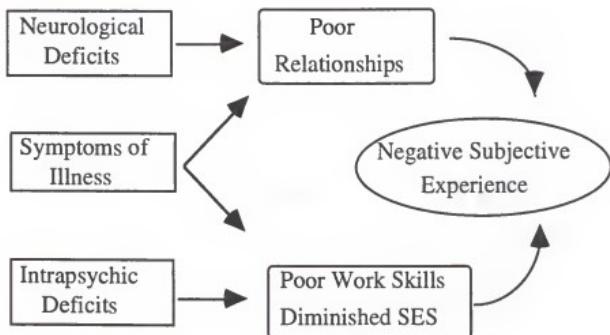
Figure 1. Pathway Linking Symptoms and Psychosocial Factors.

In general, a combination of symptoms of illness, neurocognitive deficits, and intrapsychic problems lead to psychosocial problems (poorer relationships, employment problems, and diminished socio-economic status). These psychosocial problems cause low morale and diminished life satisfaction (i.e., negative subjective experience) (Romney, 1995). In addition, Romney (1995) explains that there was a strong correlations between the three 'causal' factors: symptoms of illness, neurocognitive deficits, and intrapsychic problems. Therefore, there may be an interaction between these three factors. But the author did not test the strength of this interaction. In addition, insight was not assessed in the above study. If insight is considered a psychotic symptom related to neurocognitive deficits, then a more in depth analysis may have found evidence for an association between insight, illness, neurocognitive deficits, and psychosocial functioning. For example, a general lack of insight may be a precondition in Romney's (1995) pathway which leads to psychosocial problems and negative subjective experience. The writer hypothesizes that poor insight could have been an initial deficit related to the symptoms, neurological dysfunctions, and intrapsychic confusion found in Romney's (1995) study. Perhaps poor insight could be an initial symptom (based on neurocognitive deficits) which serves to increase overt psychotic symptoms, therefore leading to more severe psychosocial problems and less life satisfaction. However, this hypotheses has not yet

been tested. Therefore, further research in the area is necessary (Schwartz, in press).

Markova and Berrios (1995b) support the notion that prior research on insight and psychosis has yielded limited and conflicting results. After a review of literature on insight and psychosis, these authors concluded that "the most important issue emerging from this review is the need for more conceptual study before further empirical investigation is undertaken. . . . Conceptual study is essential in order for meaningful conclusions to be drawn from correlational studies" (p. 372-373). Therefore, Markova and Berrios (1995a) developed a theoretical model or pathway linking insight to other features of psychosis.

Markova and Berrios (1995a) believe that insight is a construct or phenomenon which can be assessed and quantified. However, according to these authors there are two different types of insight in psychosis: global (general) insight and specific (symptom) insight. Global insight is awareness of generally having a mental disorder. All psychotic clients can potentially gain global insight into their illness since all psychotic clients have a mental illness. Specific insight involves awareness of specific psychotic symptoms (e.g., hallucinations or delusions). Specific insight can potentially only be obtained by clients who exhibit certain symptoms. In other words, all psychotic clients cannot gain specific insight into hallucinations because all psychotic clients do not exhibit hallucinations. Only clients who do

have hallucinations can potentially gain awareness of them.
Therefore, global insight is truly 'global' in that all
psychotic clients have it to differing degrees. Specific
insight is truly 'specific' because only certain clients can
achieve it (based on their individual symptoms) to differing
degrees. The conceptual difference between global and
specific insight is important because Markova and Berrios
(1995a) have developed a pathway in which global and specific
insight develop during different stages of the illness.
Figure 2 shows the pathway linking insight and stages of
psychosis as proposed by Markova and Berrios (1995a).
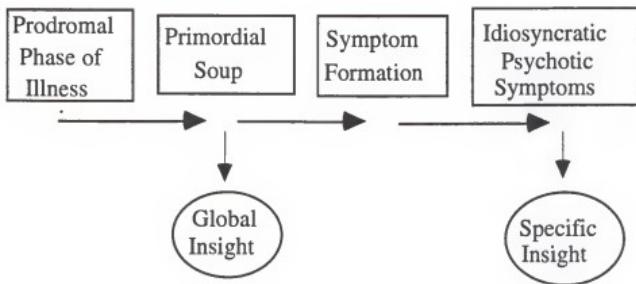
Figure 2. Pathway Linking Global and Specific Insight to
Stages of Psychosis.

Markova and Berrios (1995a) assert that at first a psychotic
client begins to experience prodromal or early signs of
illness. This prodromal phase may include odd beliefs, minor
personality changes, social withdrawal, and deteriorating
interpersonal skills. These symptoms are not classified as

psychotic, however they are the beginning stages of a severe
mental illness. During this prodromal stage neurocognitive
deficits begin to disorganize the individual, leading to the
next phase of illness. After a constellation of prodromal
symptoms evolve, together they form what Markova and Berrios
(1995a) call a 'primordial soup.' This term refers to a
collection of symptoms which together qualify as a beginning
psychosis; at this point neurocognitive deficits have led to
a psychotically-organized personality. That is, the client
may not have full psychotic symptoms (e.g., vivid
hallucinations), but they definitely experience bizarre and
psychotic-like symptoms (e.g., illusions, thought
disturbance, lower motivation, suspiciousness). During this
stage of illness, the client may gain global insight into
their illness. They cannot gain specific insight because
full psychotic symptoms have not yet developed. But the
client may be aware that they are experiencing mental
problems which are affecting other areas of life. And they
may be aware that treatment is needed. Then, full or active
psychotic symptoms occur. These symptoms are idiosyncratic
to the individual; they may be manifested in a variety of
forms. Based on the specific psychotic symptoms that are
displayed, one of several psychotic diagnoses are made (APA,
1994). After these full psychotic symptoms have developed
the client may gain specific insight into their psychotic
symptoms. Both global and specific insight occur on a
continuum. The Scale to Assess Unawareness of Mental

Disorder (SUMD) (Amador et al., 1991) was specifically developed to assess both global and specific insight among psychotic clients. In this study the writer will only assess global insight. There are several reasons for only evaluating global insight in this study: (a) global insight is a phenomenon potentially attainable by all psychotic clients (as opposed to specific insight into certain symptoms), (b) global insight supercedes specific insight in breadth, and (c) one purpose of this study is to examine the value of global insight in predicting symptoms of illness and psychosocial impairments.

The Assessment of Insight in Psychosis

The measurement of insight in psychosis has received little critical attention in the past (Amador et al., 1991). In a review of assessment methods used to measure insight, Amador et al. (1991) and Schwartz (in press) separated instruments into four broad categories. These four measurement categories include (a) unsystematized scoring of free responses, (b) unsystematized scoring of responses to a standardized stimulus, (c) systematized scoring of free responses, and (d) systematized scoring of responses to a standardized stimulus.

Unsystematized scoring of free responses refers to making subjective clinical judgments about a client's answers to an unstructured interview. In other words, the

investigator asks the client what they think or feel about their psychological state, and the client has no restrictions on the type of responses they can make. The clinician then must make judgments concerning whether the client does or does not have insight into their illness. However, there is no standardized method or rating scale for making these judgments. Most early studies of insight were based on this method (e.g., Bertschinger, 1916; Mayer-Gross, 1920; Richfield, 1954). The advantage of this method is that it does not restrict the questions asked by the clinician or the answers elicited from the client. The drawback is that the validity, reliability, and generalizability of data are limited (Amador et al., 1991; Schwartz, in press).

In unsystematized scoring of responses to a standardized stimulus, the interviewer once again does not use a standardized or validated scoring instrument. That is, whether or not a client is viewed as insightful depends on subjective clinical judgment. However, the interviewer does use a standardized stimulus (or interview) when evaluating insight. The clinician asks certain standard questions to all clients which have a structured format. Therefore, the reliability of the interviews is increased. A routine intake interview by a mental health professional would classify as this type of method (given that no specific scoring method is used). The Mental Status Exam (Talbott, Hales, & Yudofsky, 1988) falls into this category. Other researchers have also used this method to test levels of insight in clients (e.g.,

McGlashan, Levy, & Carpenter, 1974; Greenfeld et al., 1989).
With this method, however, the subjectivity in ratings of
insight still remains (Amador et al., 1991; Schwartz, in
press).

The third assessment method, systematized scoring of
free responses, is similar to the first method discussed
except that the interpretation of data is more precise.
Clients are not restricted in terms of the type of responses
they can make (since no structured interview method is used),
but their general answers are categorized and rated according
to a standardized system. An example of this method includes
tape recording client responses to a general question
regarding their illness. Then, the clinician would
categorize their answers based on a predetermined rating
scale that measured insight. Several well known studies have
used this type of insight assessment method (e.g., Bartko,
Herczog, & Zador, 1988; Heinrichs, Cohen, & Carpenter, 1985;
WHO, 1973). The benefit of this method is that interrater
reliability can be established. In addition, it allows for
the standardized quantification of insight. However,
obtaining concrete and valid information may not be possible
(Amador et al., 1991; Schwartz, in press).

The final category for assessing insight is systematized
scoring of responses to a standardized stimulus. This method
is the most reliable and generalizable of the methods
described above. In this method a structured interview is
used with all clients so that specific types of information

are elicited. Then, answers are scored according to a standardized, predetermined rating system. The value of this type of assessment method is that the eliciting stimuli are consistent from client to client. Moreover, the validity and reliability of ratings can easily be determined, and the data can easily be quantified. Several instruments have been developed according to this method (e.g., David, 1990; McEvoy et al., 1989). The most contemporary and comprehensive instrument developed to test insight according to this method is the Scale to Assess Unawareness of Mental Disorder (SUMD) (Amador et al., 1991; Markova & Berrios, 1995a; Schwartz, in press). All other instruments only assess current, global insight (i.e., current awareness of a mental disorder, its consequences, and the need for treatment). The SUMD can also be used to assess specific insight (i.e., awareness of specific psychotic symptoms, such as hallucinations, delusions, and impaired thought processes). Furthermore, the SUMD can be used to assess past or retrospective insight (i.e., awareness of past symptoms of illness). Finally, the SUMD utilizes the most broad rating system of modern instruments. Other instruments use a 3-point rating scale; the SUMD uses a 5-point rating system. This allows for more variability in ratings and the possibility of evaluating more specific levels of insight. The SUMD has been shown to have good concurrent and construct validity as well as good interrater reliability (Amador et al., 1991; Schwartz, in press). Furthermore, "data indicate that the SUMD has

convergent and criterion validities and can be used reliably with minimal training" (Amador et al., 1994, p. 827). Therefore, this study used the SUMD to test insight in relation to symptoms of illness and psychosocial impairments.

Summary of Related Literature

The role of insight among psychotic clients has recently received renewed theoretical and empirical attention. A generally accepted definition of insight has been proposed by contemporary authors, and standardized assessment instruments have been developed. Researchers have found that degree of insight is consistently related to treatment outcome; that is, poorer insight is associated with worse prognosis. Poor insight is also related to a worse global functioning. The most empirically validated theory which links insight to the psychotic illness is neurocognitive theory. This theory proposes that poor insight in psychotic disorders is caused or mediated by neurological and cognitive deficits. Psychotic clients generally display broad neurocognitive problems which limit a variety of functions. One function that these neurocognitive problems impair is the ability to gain awareness of the mental disorder itself. Therefore, poor insight may be one negative symptom of psychosis. But researchers are not certain how poor insight relates to other psychotic symptoms. Several investigators have found that insight is related to other psychotic symptoms, while other

investigators have found no such relationship. These authors assert that additional research is needed to clarify these conflicting findings. In terms of the relationship between symptoms of illness and specific psychosocial deficits, only one study has been found. This study suggested that clients with more severe symptoms showed worse psychosocial skills. However, this study did not assess insight into illness. In fact no research to date has studied the relationship between insight and specific psychosocial impairments among psychotic clients. There may be a complex (triangular) relationship among insight, illness, and psychosocial deficits which has not been addressed in prior research. Insight may affect symptoms, psychsocial deficits, and global functioning; symptoms may affect psychosocial deficits and global functioning independently of insight; or demographic variables may influence symptoms or psychosocial impairments. In this study an attempt was made to research this relationship using a large, diverse sample, contemporary assessment instruments, and an in-depth data analysis.

CHAPTER 3
METHODOLOGY

A review of the related literature suggests that the relationship among insight, illness, and psychosocial functioning in psychotic clients has not been researched adequately. Prior research related to insight and psychosis has either been neglected or contradictory. Results from studies investigating the relationship between insight and illness have been mixed, indicating that further studies are needed. Moreover, no past studies included associated symptoms which may correlate with degree of insight (e.g., traumatic stress). In terms of the relationship between insight and degree of psychosocial impairments, no studies have been found. Finally, only one study has been reported in which the authors tested the relationship between symptom severity and functional skill deficits. But even this study did not include many psychosocial variables which could relate to symptomatology (e.g., family relationship problems or socio-legal problems). Therefore, the relationship among degree of insight, severity of symptoms, and level of psychosocial impairments was empirically examined in this study. This study investigated (a) whether degree of insight relates to certain symptoms of illness, certain psychosocial characteristics, or global functioning, (b) whether various

demographic characteristics relate to specific symptoms of illness, specific psychosocial variables, or global functioning, and (c) whether symptoms of illness are associated with psychosocial variables and global functioning independent of insight or demographic characteristics. The methodology which used to test these relationships is delineated below. A description of the hypotheses, research design, participants, procedures, instrumentation, variables, data analyses, and limitations follows.

<u>Hypotheses</u>

The following null hypotheses were tested in this study:

1. There is no relationship among degree of insight, as measured by ratings on the Scale to Assess Unawareness of Mental Disorder (SUMD), and symptoms of illness, as measured by symptom ratings on the Functional Assessment Rating Scale (FARS), in psychotic clients.

2. There is no relationship among degree of insight, as measured by the SUMD, and psychosocial impairments, as measured by the FARS, in psychotic clients.

3. There is no relationship among degree of insight, as measured by the SUMD, and global functioning, as measured by ratings on the Global Assessment of Functioning (GAF) scale, in psychotic clients.

4. There is no relationship among demographic variables and symptoms of illness, as measured by the FARS, in psychotic clients.

5. There is no relationship among demographic variables and psychosocial impairments, as measured by the FARS, in psychotic clients.

6. There is no relationship among demographic variables and global functioning, as measured by the GAF scale, in psychotic clients.

7. There is no relationship among symptoms of illness, as measured by the FARS, and psychosocial impairments, as measured by the FARS, in psychotic clients.

8. There is no relationship among symptoms of illness, as measured by the FARS, and global functioning, as measured by the GAF scale, in psychotic clients.

Research Design

In their hypotheses describing the relationship between insight and symptoms of psychosis, Markova and Berrios (1995a) propose a neurocognitive theory. The authors propose a model in which general insight (i.e., global awareness of a mental disorder) may be a pre-symptom (i.e., a mild form of thought disorder occurring before active symptoms arise) which is then followed by active symptoms of psychosis. Specific insight (i.e., awareness of specific positive or negative psychotic symptoms) may or may not be achieved after the client becomes actively psychotic. However, what is clear is that eventually psychosocial and global impairments arise. These functional deficits result from some combination of poor insight, symptoms of illness, and possibly other unknown factors (e.g., demographic characteristics). A similar theory has been asserted by other authors (e.g., Romney, 1995).

In order to test the 8 null hypotheses proposed in this study, 3 instruments were used: the Functional Assessment Rating Scale (FARS) (Ward & Dow, 1994), the Global Assessment

of Functioning (GAF) (APA, 1994) scale, and the Scale to
Assess Unawareness of Mental Disorder (SUMD) (Amador et al.,
1991). These instruments were used to assess demographic
characteristics (FARS), symptoms of psychosis and associated
symptoms of illness (FARS), psychosocial impairments (FARS),
global functioning (GAF), and global insight (SUMD). In this
study a non-experimental, correlational design was used to
test several research hypotheses, including the degree to
which insight, illness, or demographic factors predict
psychosocial impairments. A non-experimental design was
chosen because direct control of pertinent variables (e.g.,
insight, illness, psychosocial variables, and demographic
characteristics) was not possible; that is, neither
experimental manipulation nor random assignment could be
utilized (Kerlinger, 1986). However, for purposes of
reliability, participants were interviewed using a
structured, standardized format from which insight, symptoms,
functioning skills, and demographics were assessed. A
between-subjects approach was utilized since participants
were assessed at a single point in time (Cook & Campbell,
1979), after which the data were tested using multiple
regression analyses.

<u>Participants</u>

International epidemiological studies have estimated
that between 1% and 3% of the general population will develop

a form of psychosis, regardless of nationality or ethnicity
(WHO, 1995). On average the United States has a prevalence
rate of approximately 1.5% (Marder, 1997). However,
prevalence rates on a national scale range from .6% to 1.9%
(APA, 1997). In terms of gender, males manifest psychotic
symptoms during the early to late 20's on average, while
females usually manifest symptoms during the late 20's to
early 30's. Males and females are approximately equally
represented among clients with psychotic disorders, although
the incidence rate is slightly higher among males (APA,
1994). In addition, psychotic clients are significantly
overrepresented in lower socioeconomic classes (WHO, 1995).
Finally, in terms of global insight, studies report that on
average 50%-70% of psychotic clients show moderate to severe
lack of insight into their illness (Amador et al., 1994).

Specific national statistics are also available
regarding demographic characteristics of clients with severe
mental illnesses, including psychotic disorders. For
example, a recent national sociodemographic survey was
conducted by the U. S. Department of Health and Human
Services for clients with severe mental illnesses (SMI) aged
18-54. There was no significant difference in gender among
clients with SMI (approximately 60% were female,
approximately 40% were male). There was no significant
difference in age among clients with SMI (approximately 30%
were between 18 and 24, 23% were between 25 and 34, 28% were
between 35 and 44, 19% were between 45 and 54). There were

no significant differences in race among clients with SMI
(approximately 30% were Hispanic, 25% were Caucasian, 25%
were African-American, 20% were classified as Other).
Significantly more clients with SMI had poor education
(approximately 70% had less than 12 years of education).
There were significant differences in marital status among
clients with SMI (approximately 80% were not married). There
were no significant differences in urbanicity among clients
with SMI (approximately 35% lived in metropolitan cities, 35%
lived in generally urban settings, and 30% lived in rural
settings). There were no significant differences in
geographic region (approximately 25% lived in the Midwest,
25% lived in the Northeast, 25% lived in the West, and 25%
lived in the South). There were significant differences in
income among clients with SMI (the majority earned less than
$20,000, and only approximately 15% earned more than $70,000)
(Manderscheid & Sonnenschein, 1996). Thus, the average
client with SMI is younger (ages 18-35 versus 35-55) and
unmarried with lower income and less years of education.

In terms of psychotic disorders, Sanguineti et al.
(1996) conducted a retrospective analysis of 2,200
psychiatric clients. These authors report that most clients
with psychoses are African-American (68% African-American
versus 27% Caucasian versus 5% Mixed), male (58% male versus
42% female), younger (78% under 44 years versus 22% over 45
years), and unmarried (91% unmarried versus 9% married). A
second national study on psychotic clients confirmed these

demographics. Amador et al. (1994) found that most psychotic clients were younger (Mean Age=34.4, Standard Deviation=11), male (65% male versus 35% female), unmarried (92% unmarried versus 8% married), and had lower education (Mean Years=12, Standard Deviation=3). In addition these authors report that most psychotic clients have poor global functioning as measured by the GAF scale (Mean GAF=34.5, Standard Deviation=10). And most psychotic clients showed poor insight as measured by the SUMD (32% were completely unaware, 26% were somewhat unaware, 42% were aware). In terms of specific SUMD categories, the authors found generally poor awareness of having a mental disorder (item 1) (Mean Score=2.9, Standard Deviation=1.85), generally poor awareness of the consequences of their mental disorder (item 2) (Mean Score=2.9, Standard Deviation=1.90), and generally poor awareness of the need for treatment (item 3) (Mean Score=2.7, Standard Deviation=1.81).

The participants for this study included 170 adult clients (over the age of 18) from northern Florida who were diagnosed with a psychotic disorder. Participants ranged in age from 18 to 79 years (Mean Years=39.2, Standard Deviation=9.8). Only adults were included because (a) the onset of psychosis usually occurs between the late teens and early thirties, (b) onset prior to teenage years is rare, and (c) symptoms are usually more elaborated in adults leading to more accurate diagnoses (WHO, 1995).

Participants in this study had an average of 14.3 years of treatment (Standard Deviation=8.7). In terms of gender, 95 (56%) were male and 75 (44%) were female. Participants were generally from a lower socioeconomic class; average monthly income was $481 (Standard Deviation=$288). Participants had an average of 27.5 days in the community during the previous month (i.e., not in jail or in the hospital) (Standard Deviation=7.8). Generally, participants were unemployed; average number of days worked in the previous month was 1.9 (Standard Deviation=5.8).

The northern Florida sample for this study was drawn from among residents in Alachua, Baker, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Levy, Putnam, Suwannee, and Union counties. All participants were clients at Meridian Behavioral Healthcare, Inc. of Florida (MBH), a non-profit community agency serving a catchment area comprising the twelve counties listed above. The participants from MBH were selected from one of three treatment programs: (a) the outpatient treatment program, (b) the residential treatment program, and (c) the inpatient treatment program. Clients receiving outpatient services lived independently in the community (either alone, with a roommate, or with a family member) and are followed by a case manager. Clients receiving residential treatment lived in a supported housing facility staffed by residential therapists; in addition, residential clients are also followed by a case manager. Inpatients were those admitted (either voluntarily

or involuntarily) to a psychiatric hospital for short-term treatment due to acute psychosis. These groups were selected in order to provide a heterogeneous, generalizable sample regarding insight, symptoms, functional skills, and demographics. The only remaining strata which was not sampled directly was a long-term hospitalization sample (e.g. in a State Hospital). This group of clientele was omitted because (a) it was not readily accessible and (b) because most clients diagnosed with a psychotic disorder are not hospitalized for extensive periods (Muijen, 1992). Therefore, inclusion of this subgroup may have lead to result which would not generalize to most psychotic clients.

Criteria for inclusion in this study simply involved a psychotic disorder diagnosis (any type) according to specifications outlined in the <u>Diagnostic and Statistical Manual of Mental Disorders</u> (DSM-IV) (APA, 1994). Participants had the following clinical diagnoses: Schizophrenia (N=127), Schizophreniform Disorder (N=2), Schizoaffective Disorder (N=15), Delusional Disorder (N=1), and Psychotic Disorder Not Otherwise Specified (N=25) (Morrison, 1995; Wing, 1992). Clients manifesting primary mood disorders (with or without psychotic features) or other mental disorders with only secondary psychotic symptoms were not included in this study; evidence suggests that clients having primary versus secondary psychotic features differ in levels of insight and associated symptoms (Amador et al., 1994).

All subjects were clinically diagnosed by a MBH staff psychiatrist specializing in severe mental illness. Psychiatrists were not informed of the study protocol or procedures. Diagnoses were based on observed and reported psychotic symptomatology (Andreasen, 1982) after a structured clinical interview and medical chart review. Participants were not discriminated based on age, race, ethnicity, gender, income, work history, personal or family history, education, prior number of hospitalizations, voluntary or involuntary treatment status, psychosocial impairments, or severity of illness.

Procedures

This study was designed to assess the relationship among insight, symptoms of illness, and psychosocial impairments in a representative sample of psychotic clients. Therefore, the researcher first needed to obtain reliable assessment ratings in regard to the variables studied (including demographic characteristics). Furthermore, an appropriate sample size was necessary to ensure adequate statistical power (Cohen, 1968). Power refers to the extent that certain statistics can detect the effects of independent variables (Cone & Foster, 1995). Furthermore, a power analysis attempts to maximize the researcher's ability to find significant results by combining factors such as sample size, significance criterion, population effect size, and statistical power

(Cohen, 1992). The investigator conducted a power analysis for this study based on a power of .80, a medium effect size (R^2=.15) for multiple and multiple-partial correlations, an alpha level of .01, and ten independent variables (the largest number of independent variables tested in any single multiple regression model). The minimum number of subjects needed under these conditions is approximately 150-160 (Cohen, 1992). A total of least 170 participants were included in this study.

In terms of assessments, MBH currently evaluates all adult psychotic clientele regarding psychiatric symptoms, functional impairments, and general insight into illness. This agency currently assesses newly admitted inpatient and outpatient clients (including residential clients) using the FARS (Ward & Dow, 1994), the GAF (APA, 1994) scale, and the SUMD (Amador et al., 1991). The purpose of using these assessments at MBH is for general baseline statistics and treatment outcome research. All evaluations are currently being conducted independently of the present study. For this study the researcher obtained archival ratings from MBH concerning these instruments. Scores from the three instruments described above were collected directly from agency staff members for data analysis purposes. The University of Florida Institutional Review Board approved the procedures and data analyses used in this study.

First, the Clinical and Research Review Board at MBH was contacted in order to submit a proposal for the research

procedures used in this study. After approval of the research design at MBH, the investigator submitted a research proposal to the University of Florida Institutional Review Board (IRB). After approval of the research design by the IRB, the writer contacted the supervisors of three MBH programs: (a) the Department of Emergency Services (assigned to complete admission screenings and intake interviews for all inpatient services), (b) the Residential Treatment Program (assigned to admit and treat all mental health clients needing supported housing and residential treatment), and (c) the Adult Case Management Program (assigned to monitor and follow all mental health clients residing independently in the community).

Each of the three supervisors were informed of the approved general protocol of the study. Each supervisor was informed that a study was being conducted related to insight, illness, and functional skills, and that a copy of all FARS, GAF, and SUMD ratings was needed for each newly admitted client. Then, each supervisor was asked not to disclose any information concerning this research project to MBH staff members. Thus, MBH staff members remained blind while evaluating all clientele admitted to the agency.

All newly admitted clients were clinically diagnosed according to DSM-IV (APA, 1994) criteria by a board-certified psychiatrist. Then, each client was interviewed in an initial intake and evaluation session by either a professional intake screener (for inpatients) or a case

manager (for residential or outpatient clients). Case
managers specialize in assisting clients by organizing and
delivering mental health treatment in an efficient manner
(Sledge, Astrachan, Thompson, Rakefeldt, & Leaf, 1996).

Each interview lasted approximately 90 minutes. The
interviews focused on obtaining demographic information, a
complete personal history, a drug profile and medical
history, a family and legal history, a mental status
examination, an assessment of symptomatology, and an
assessment of general insight into illness. After each
interview, all clinicians completed the FARS, GAF, and SUMD
measures. Each completed instrument was then given to
respective supervisors. All inpatient interviews were
conducted in a screening room at the Crisis Stabilization
Unit of MBH. All outpatient and residential treatment
interviews were conducted in a case manager's office or a
conference room at the Adult Case Management/Day Treatment
Building of MBH.

All interviewers had extensive training in the
assessment areas described above. Staff members in the three
programs described above were professionally trained to use
the FARS, the GAF (Ward, Dow, Saunders, Penner, & Halls,
1996), and the SUMD (Amador & Strauss, 1993b) by both the
writer and independent trainers. Each staff member received
a minimum of 4 hours of training in regard to the instruments
used. Each training consisted of a presentation concerning
the instruments, video recordings of sample evaluations, case

presentations, individual practice, and group discussion. In
addition, all staff members had several years of professional
experience working with psychotic clients.

The writer collected all FARS, GAF, and SUMD ratings
from MBH supervisors for the period of February, 1997 to
July, 1997. Then, the writer separated clients into
diagnostic groups. All non-psychotic diagnoses were excluded
as participants for this study. In addition, during the 6-
month assessment period, a proportion of psychotic clients
were simultaneously interviewed and evaluated by 2 clinicians
for purposes of interrater reliability. The writer randomly
selected 42 psychotic clients (25%) who were interviewed by 2
clinicians. These 42 clients were equally represented from
the 3 treatment locations. Interobserver agreement was then
calculated to assess the reliability and accuracy of ratings
(Feldt & Brennan, 1989).

<div align="center">Instrumentation</div>

The instruments used in this study included the
Functional Assessment Rating Scale (FARS) (Ward & Dow, 1994),
the Global Assessment of Functioning (GAF) (APA, 1994) scale,
and the Scale to Assess Unawareness of Mental Disorder (SUMD)
(Amador et al., 1991). All of these instruments were
specifically designed to assess clients with severe mental
illness. Appendix A lists and describes the SUMD items used
in this study. Appendix B lists and describes items included

on the FARS. Appendix C gives a general outline of the GAF
scale. All of the instruments described above are available
for public use.

Scale to Assess Unawareness of Mental Disorder (SUMD)

The Scale to Assess Unawareness of Mental Disorder
(SUMD) (Amador et al., 1991) is the most contemporary and
comprehensive instrument available to rate a client's degree
of insight into illness (Amador & Strauss, 1993; Markova &
Berrios, 1995b; Schwartz, in press). Furthermore, this scale
was specifically developed to evaluate various aspects of
insight into psychosis (Amador, Strauss, Yale, Gorman, &
Endicott, 1993). The authors developed this measure in order
to both promote a multidimensional approach to insight, and
to increase the reliability of clinical ratings in this area
(Amador et al., 1993).

The SUMD is a 20-item rating scale which requires that
the client display symptoms of a mental disorder (e.g.,
psychotic symptoms). Each item can be rated in regard to
both 'current' and 'past' insight into illness; therefore, a
total of forty separate ratings (twenty current ratings, and
twenty past ratings) can be obtained. Present awareness
includes level of insight into current symptoms at the time
of the interview; past awareness describes level of
retrospective insight in regard to past symptoms of mental
disorder at any time prior to the interview (e.g., one year

ago). Items 1-3 on the SUMD are termed 'general awareness' items because they do not assess awareness of specific symptoms (i.e., awareness of having a mental disorder, awareness of the need for treatment, and awareness of the social consequences of the mental disorder, such as relationship problems or hospitalization). Items 4-20 on the SUMD are termed 'specific symptom awareness' items (e.g., awareness of hallucinations, delusions, disorientation). Only the first three items will be used in this study, since only general insight will be evaluated. In addition, only current insight will be evaluated; past awareness will not be assessed. Each item is rated on a 5-point scale (5=unaware, 3=somewhat aware, 1=aware). Higher scores imply poorer insight.

The SUMD has adequate reliability. Amador and Strauss (1993a) report that the overall interrater reliability for SUMD items is .95 and the test-retest reliability is .62. The SUMD also has good construct validity (Markova & Berrios, 1995b; Schwartz, in press) and good concurrent validity when used with a variety of similar instruments (Amador, Endicott, Flaum, Strauss, & Gorman, 1994; Amador & Strauss, 1993a). In this study, correlations for interrater agreement on SUMD items 1, 2, and 3 were .96, .94, and .97, respectively.

Functional Assessment Rating Scale (FARS)

The Functional Assessment Rating Scale (FARS) (Ward &
Dow, 1994) was developed at the Florida Mental Health
Institute, University of South Florida in conjunction with
the Florida Department of Children and Families for use at
community agencies throughout the state of Florida. The
scale was implemented statewide in 1995. The general focus
of the FARS is to assess the mental health deficits and needs
of community agency clientele. The scale was therefore
structured specifically to evaluate demographic, symptomatic,
behavioral, and psychosocial data with a diverse array of
clinical populations (i.e., clientele ranging from outpatient
settings to case management services to inpatient crisis
stabilization) (Ward & Dow, 1994).

The FARS is divided into 3 basic categories: a
biographical or demographic category, a symptom category, and
a psychosocial functioning category. The demographic
category of the FARS includes a listing of the following
information: (a) subject identification number, (b) date of
birth, (c) interview date, (d) subject gender, (e) purpose of
the evaluation (e.g., admission, discharge, or annual
update), (f) source of income, (g) income in the last 30
days, (h) total days employed in the last 30 days, (i) total
days of independent living in the last 30 days (e.g., not in
jail or in the hospital), and (j) primary clinical diagnosis.
All items listed above will be assessed in order to obtain

sociodemographic data. In addition, the writer added total years of treatment to the list delineated above for the purpose of statistical analyses.

The symptom category of the FARS was developed to evaluate the following general syndromes (i.e., groups or constellations of symptoms): (a) depression, (b) hyper affect, (c) cognitive impairment, (d) traumatic stress, (e) anxiety, (f) disturbed thought processes, and (g) medical/physical problems. All symptom items except medical/physical problems will be used in statistical analyses. The psychosocial functioning category includes: (a) interpersonal relationship problems, (b) dysfunctional family/living environment, (c) work or school difficulties, (d) reduced ability to care for self, (e) danger to others, (f) family relationship problems, (g) socio-legal problems, (h) impairments in adult daily living skills, (i) danger to self, (j) security or management needs, and (k) substance abuse. All psychosocial items except substance abuse will be included in statistical analyses. Ratings on both symptom and psychosocial functioning items are scored on a 9-point scale (1=no problem, 3=slight problem, 5=moderate problem, 7=severe problem, 9=extreme problem). Higher scores mean that a more severe problem is noted in that category (Ward, Dow, Saunders, Penner, Halls, & Sachs-Ericsson, 1995).

The FARS has adequate interrater reliabilities for all symptom and psychosocial functioning items -- intraclass correlations typically range from .60 to .75. [The authors

report one exception to the reliabilities stated above, namely ratings on work/school problems, which typically range between .50 and .60.] The FARS also has good concurrent and predictive validities based on research using similar instruments (Ward & Dow, 1994). In this study the correlations for interrater agreement on the FARS ranged from .78 to .96. Similar to statistics reported by Ward and Dow (1994), the interrater reliability for work/school problems was .61.

Global Assessment of Functioning (GAF) scale

The Global Assessment of Functioning (GAF) scale is delineated in DSM-IV (APA, 1994, p. 32). This scale is used to assess overall symptomatology and daily functioning; that is, the GAF yields 1 score of overall global functioning. After a semi-structured interview, the clinician assigns 1 global rating reflecting general daily impairment in regard to symptom severity and psychosocial dysfunctions. Ratings are made according to a 100-point continuum. Lower ratings reflect more severe impairments on the mental health-sickness continuum. The GAF is a useful measure of current functioning (Oakley & Potter, 1997). The GAF is a modified version of the Global Assessment Scale (GAS) (Endicott, Spitzer, Fleiss, & Cohen, 1976). The GAF is a widely used and recognized rating scale, and previous research has demonstrated good reliability using this scale (Schwartz, in

press; Spitzer, Gibbon, & Endicott, 1975). For example, Dill, Eisen and Grob (1989) report that this scale is a valid indicator of global functioning, with intraclass reliability coefficients ranging between .79 to .91 when client interviews are utilized. The instrument also demonstrates good concurrent and predictive validities (Endicott et al., 1976). In this study the correlation for interrater agreement was .91.

Variables

In order to examine whether there is a relationship among insight, severity of illness, psychosocial impairments, and global functioning, several different independent and dependent variables will be used in analyses. These variables were assessed using the SUMD, FARS, and GAF scale, respectively. The variables used in this study are operationally defined below. All variables were assessed by blind raters after individual clinical interviews. As described above, the integrity (i.e., reliability and validity) of these variables was maintained by simultaneously evaluating a random sample (25%) of participants for interrater agreement.

In order to test null hypotheses 1-3, the independent (predictor) variables included 3 ratings of global insight, as measured by the SUMD. Insight was defined as the individual's reported or observed degree of general awareness

of mental disorder, as assessed by the SUMD. The 3 global
SUMD areas involved information on the client's general
awareness of a mental disorder (item 1), its consequences
(item 2), and the need for treatment (item 3). Therefore, a
total of 3 independent variables were used to test hypotheses
1-3.

The dependent variables used to test null hypotheses 1-3
included symptoms of illness (hypothesis 1), psychosocial
impairments (hypothesis 2), and global functioning
(hypothesis 3). Symptoms of illness were defined as reported
or observed internal states of distress or dysfunction, as
assessed by ratings on the FARS. Psychosocial impairments
were operationalized as reported or observed external
(psychological or social) signs of distress or dysfunction,
as assessed by ratings on the FARS. Global functioning was
defined as reported or observed general, overall functioning
in life (personal, psychological, social, and occupational),
as assessed by ratings on the GAF.

Symptoms of illness were assessed using the symptom
cluster areas of the FARS. The 6 symptom clusters included
severity of depression, hyper affect, cognitive impairments,
traumatic stressors, anxiety, and disturbed thought
processes. Psychosocial impairments were assessed using the
functional cluster areas of the FARS. The 10 psychosocial
areas assessed included severity of poor interpersonal
relationships, family environment problems, poor work or
school skills, inability to care for self, danger to others,

poor family relationships, socio-legal problems, poor adult daily living (ADL) skills, danger to self, and security/management needs. Global functioning was assessed using the GAF. The GAF score provided an index of overall functioning. Therefore, there were three groups of dependent variables for hypotheses 1-3, and each dependent variable included a cluster of independent variables (SUMD items 1-3).

In order to test null hypotheses 4-6, the independent (predictor) variables included one continuous score, total years of treatment. An assessment of total years of treatment was included by the writer in each clinical interview for data analysis purposes. No other demographic variables were used to test null hypotheses 4-6 because empirical studies consistently show that other demographics do not correlate with insight, symptoms, or functioning. For example, Lysaker and Bell (1994) showed that there in no relationship among insight, age, years of education, number of hospital admissions, symptoms, gender, or ethnicity. Peralta and Cuesta (1994) report that no relationship exists between insight, age, gender, age at onset of symptoms, years of education, or duration of illness. Lysaker and Bell (1995) explain that no correlation exists between insight, age, years of education, number of hospitalizations, and days worked during the previous year. Heinrichs, Cohen, and Carpenter (1985) confirmed that there is no association among insight, age, gender, socioeconomic status, and number of hospitalizations. Finally, Lysaker et al. (1994) and Cuffel

et al. (1996) report that there is no relationship between insight, age, gender, race, drug or alcohol use, or work performance.

The dependent variables used to test null hypotheses 4-6 include symptoms of illness (hypothesis 4), psychosocial impairments (hypothesis 5), and global functioning (hypothesis 6). These dependent variables were assessed using the same instruments and items as were used when testing null hypotheses 1-3. That is, the 6 symptom areas of the FARS, the 10 psychosocial impairment clusters of the FARS, and the 1 global functioning score of the GAF were used as dependent variables to test hypotheses 4-6, respectively.

In order to test null hypotheses 7 and 8, the independent (predictor) variables included symptoms of illness. Severity of symptoms were assessed and measured using the 6 symptom areas of the FARS (as described above). The dependent variables used to test null hypotheses 7 and 8 included psychosocial impairments (hypothesis 7), and global functioning (hypothesis 8). The same 10 psychosocial clusters on the FARS and the same GAF ratings were used as dependent variables to test hypotheses 7 and 8, respectively.

Data Analysis

There were a total of 21 variables in this study -- 3 insight items rated using the SUMD, 1 demographic item rated, 6 symptom items rated using the FARS, 10 psychosocial items

rated using the FARS, and 1 global functioning item scored using the GAF. In this study a multiple regression/correlation (MRC) analysis was used to analyze the relationship between various independent (predictor) variables and various dependent (criterion) variables. A MRC analysis "is a highly general and therefore flexible data-analytic system that may be used whenever a quantitative variable (the dependent variable) is to be studied as a function of, or in relationship to, any factors of interest (expressed as independent variables)" (Cohen & Cohen, 1983, p. 3). Thus, the specific variables and analyses must be identified in order to clarify which statistical tests will be used in this study.

First, the writer assessed all relevant sample characteristics. This was accomplished by creating a frequency distribution table for all variables. Means and standard deviations were obtained for total years of treatment, the 3 SUMD insight ratings, the 6 FARS symptom ratings, the 10 FARS psychosocial ratings, and the 1 GAF score. In addition, the writer obtained descriptive statistics for age, gender, monthly income, and days worked in the past 30 days. These additional statistics were obtained for demographic purposes.

Next, research hypotheses (1-8) were tested using multiple regression analyses. A total of 17 separate multiple regression models were obtained in this study, reflecting each of the 17 dependent variables used. Each of

the various dependent variables were tested separately in relation to various independent variables. The 1 GAF score was used as a dependent (criterion) variable; the independent (predictor) variables used in this multiple regression equation included the 3 SUMD insight ratings, the 6 FARS symptom ratings, and total years of treatment. Each of the 10 FARS psychosocial ratings were used as dependent variables; the independent variables used in these multiple regression equations included the 3 SUMD insight ratings, the 6 FARS symptom ratings, and total years of treatment. Finally, each of the 6 FARS symptom ratings were used as dependent variables; the independent variables used in these multiple regression equations included the 3 SUMD insight ratings and total years of treatment. The omnibus hypothesis tests described above therefore took the following form:

$$H_O: \quad B_1 = B_2 = B_3 = \ldots B_Z = 0$$

The various omnibus tests each yielded an F-value according to the following formula:

$$F = (R^2/1-R^2) \ (n-k-1/k)$$

In each multiple regression analysis, if the Ho was rejected then one or more of the independent variables was significantly related to the dependent variable tested. Therefore, specific tests were needed to determine which

independent variable(s) was (were) related to the dependent variable tested. Testing specific hypotheses provided information concerning which specific independent variable in the model was significantly related to the particular dependent variable (while controlling for other independent variables). The various specific hypothesis tests took the following form:

$$H_o1:\ B_1 = 0,\ H_o2:\ B_2 = 0,\ .\ .\ .\ H_oZ:\ B_Z = 0$$

The various specific tests yielded t-values according to the following formula:

$$t_1 = b_1/s_{b1},\ t_2 = b_2/s_{b2},\ .\ .\ .\ t_Z = b_Z/s_{bz}$$

As stated previously, a total of 17 multiple regression models were obtained in this study. For null hypotheses 1 and 4, the 3 (SUMD) insight areas and the 1 demographic variable (years of treatment) served as independent variables. Therefore, 4 independent variables were entered into the multiple regression equations. The 6 (FARS) symptom areas served as dependent variables. Therefore, a total of 6 multiple regression equations were obtained for hypotheses 1 and 4.

For null hypotheses 2, 3, 5, 6, 7, and 8 the 3 (SUMD) insight areas, 1 demographic variable, and 6 (FARS) symptom areas served as independent variables. Therefore, 10

independent variables were entered into the multiple regression equations. The 10 (FARS) psychosocial functioning areas and the 1 (GAF) global functioning area served as dependent variables. Therefore, a total of 11 multiple regression equations were obtained for hypotheses 2, 3, 5, 6, 7, and 8. In summary, these analyses allowed the researcher to test the main hypotheses, specific hypotheses, and to obtain the multiple squared partial correlations between independent and dependent variables. Due to the large number of independent variables assessed, and alpha level of $p < .01$ was used for all statistical tests.

Limitations

This study was designed to clarify prior theory and research focused on the relationship among insight, illness, and functioning in psychotic clients. However, there are several limitations to the research design and methodology described above. First, even though comprehensive clinical interviews were conducted with a variety a psychotic clients from several treatment locations, a representative sample of all psychotic clients cannot be guaranteed. For example, this sample was drawn from admissions to a northern Florida community agency during a specified (6-month) period. The clientele admitted during this period may not fully represent the average psychotic client admitted during different periods of the year. Moreover, psychotic clients in other

states may manifest a different relationship between the variables tested due to varying treatment modalities.

Second, completely objective and reliable clinical evaluations are not possible, especially with such a difficult and diverse client population as psychotic individuals. As Markova and Berrios (1995b) state, there is inevitably a complex relationship between client, clinician, and their interaction when assessing variables such as insight or illness. Therefore, it is possible that some interviewers will assess clients more accurately than others based on more complete self-disclosure by the client. This may be due to communication styles or non-verbal interaction patterns between the clinician and client. The subtleties of these interactional patterns were not tested in this study.

Finally, even though many variables were evaluated using the measures described above, the instruments utilized in this study do not assess specific areas of insight, specific symptoms, or specific functional behaviors; only global categories were tested. For example, only general insight (SUMD items 1-3) was tested. Specific SUMD insight areas (items 4-20) (e.g., insight into hallucinations, delusions, alogia, or anxiety) were not used in this study. Also, the FARS assesses clusters of symptoms and psychosocial impairments rather than specific symptomatology (e.g., 'disturbed thought processes' includes hallucinations, delusions, paranoia, illogical thinking, and preoccupations). Therefore, many specific symptom variables were not

evaluated. In general, only the global relationship between insight, illness, and functional skills was tested.

Chapter Summary

The purpose of this study was to investigate whether there is a significant relationship among insight into illness, severity of symptoms, and psychosocial impairments in psychotic clients. This study utilized the Scale to Assess Unawareness of Mental Disorder (SUMD), the Functional Assessment Rating Scale (FARS), and the Global Assessment of Functioning (GAF) scale to test these relationships. The theory describing such relationships was based on neurocognitive theory and research linking poor insight and psychotic symptoms to psychosocial deficits according to a physiological pathway. The research design for this study involved a non-experimental, correlational format. Data collection included clinical interviews specifically assessing the variables to be tested. Interview data (i.e., clinical ratings using the instruments described above) were obtained from a representative sample at MBH. Data were analyzed using multiple regression analyses. A total of 17 multiple regression models were generated. Limitations include a convenience sample from one community agency in North Florida, possible interaction effects between interviewers and clients, and the assessment of only global areas of insight as related to illness and functioning.

CHAPTER 4
RESULTS

Results of Frequency Distributions for all Variables

Participants in this study demonstrated poor global functioning as measured by the GAF scale (Mean=43.0, Standard Deviation=14.4). In terms of symptomatology and psychosocial impairments, participants showed only mild levels of severity in general. The most severe symptoms displayed were in the areas of cognitive impairment (Mean=4.3, Standard Deviation=2.1) and disturbed thought processed (Mean=4.6, Standard Deviation=2.4). Participants showed only mild symptomatology in depression, mania, and traumatic stress. The most severe psychosocial impairments observed were in the areas of work/school problems (Mean=4.3, Standard Deviation=2.8), interpersonal relationship problems (Mean=4.1, Standard Deviation=2.2), and poor adult daily living skills (Mean=4.1, Standard Deviation=2.4). Participants showed only mild severity in dangerousness to self, dangerousness to others, or socio-legal problems. In addition, participants generally demonstrated a moderate degree of insight as measured by the SUMD. The most severe deficits in insight were manifested in the area of insight into the consequences of this mental disorder (Mean=3.2,

Standard Deviation=1.6). Table 2 shows frequency
distributions for the FARS symptom and psychosocial
impairment items, and for the SUMD items.

Table 2. Frequency Distributions for FARS and SUMD Items

FARS Symptom Item	Mean/Standard Deviation
Depression	2.7/1.9
Hyper Affect	2.7/1.9
Cognitive Impairments	4.3/2.1
Traumatic Stress	2.2/1.8
Anxiety	3.5/1.9
Disturbed Thought Processes	4.6/2.4
Medical/Physical Problems	2.0/1.6

FARS Psychosocial Item	
Danger to Self	2.5/1.8
Danger to Others	2.0/1.9
Interpersonal Problems	4.1/2.2
Family Environment Problems	2.2/1.7
Work/School Problems	4.3/2.8
Self-Care Deficits	3.2/2.2
Family Relationship Problems	3.1/2.0
Socio-Legal Problems	1.8/1.8
Poor ADL Skills	4.1/2.4
Security/Management Needs	2.4/1.9

SUMD Item	
Insight Into Illness (item 1)	2.9/1.6
Insight Into Consequences (item 2)	3.2/1.6
Insight Into Treatment (item 3)	2.3/1.6

Results of Multiple Regression Equation for GAF Ratings

A multiple regression analysis used to test the GAF
score as the dependent variable indicated that the general
multiple regression model was significant (F=10.93,
df=10,159, p=.0001). R^2 for the general multiple regression

model was .40, indicating that approximately 40% of the variance in GAF scores were accounted for by the independent variables used. Results of specific multiple regression tests revealed that severity of hyper affect (t=-2.61, p=.009), cognitive impairments (t=-2.59, p=.01), and severity of disturbed thought processes (t=-3.13, p=.002) significantly predicted global functioning. The negative relationship found suggests that as hyper affect, cognitive impairments, and disturbed thought processes increase, global functioning decreases. In addition, it was found that thought disturbance, cognitive impairments, hyper affect, and poor insight into the need for treatment had a strong influence on GAF scores; as these variables increased 1 unit, GAF scores decreased 1.71, 1.65, 1.45, and 1.36 points, respectively. Table 3 shows results of specific multiple regression tests on the dependent variable GAF score.

Table 3. Results of Multiple Regression Tests on Dependent Variable GAF Score

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	.40	.46	.635
SUMD Item 2	.55	.78	.436
SUMD Item 3	-1.36	-1.85	.066
Years Treatment	-.14	-1.34	.180
Depression	-.55	-1.04	.299
Hyper Affect	-1.45	-2.61	.009*
Cognitive Impairments	-1.65	-2.59	.010*
Traumatic Stress	-.73	-1.32	.189
Anxiety	.79	1.42	.159
Disturbed Thought Processes	-1.71	-3.13	.002*

*p<.01

Based on these results, null hypothesis 3 was not rejected. Null hypothesis 3 stated that there was no relationship between insight (as measured by the SUMD) and GAF scores. In this study, no evidence was found to contradict this hypothesis. Therefore, degree of insight does not seem to relate to overall functional impairment in schizophrenic clients. Similarly, results failed to disprove null hypothesis 6. This null hypothesis stated that there was no relationship between demographic factors (in this study total years of treatment) and GAF scores. Since no statistically significant relationship was found between demographics and global functioning, this null hypothesis was not rejected. It seems that demographic factors do not predict degree of overall functional impairment in schizophrenic clients. However, null hypothesis 8 was rejected based on results reported above. This null hypothesis states that there is no relationship between symptoms of illness (measured using the FARS) and GAF scores. Since certain symptoms were found to significantly predict global functional impairment, sufficient evidence was found to contradict this hypothesis. Specifically, severity of hyper affect and severity of thought disturbance were found to independently predict overall functioning in schizophrenic clients.

Results of Multiple Regression Equations for FARS
Psychosocial Areas

Table 4 shows results of specific multiple regression

tests on the dependent variable self-care deficits.

Table 4. Results of Multiple Regression Tests on Dependent
Variable Self-Care Deficits

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	.03	.22	.825
SUMD Item 2	.02	.20	.842
SUMD Item 3	.07	.62	.533
Years Treatment	.02	1.04	.301
Depression	.19	2.30	.023
Hyper Affect	.20	2.28	.024
Cognitive Impairments	.27	2.62	.009*
Traumatic Stress	.01	.12	.906
Anxiety	-.06	-.74	.459
Disturbed Thought Processes	.25	2.81	.005*

*p<.01

A multiple regression analysis used to test self-care

deficits as the dependent variable indicated that the general

multiple regression model was significant (F=10.02,

df=10,159, p=.0001). Therefore, when all independent

variables were combined, the model significantly predicted

ratings on self-care deficits. Results showed that R^2 for

this general multiple regression model was .39, indicating

that approximately 39% of the variance in self-care deficits

were accounted for by the independent variables included.

Results of specific multiple regression tests revealed that

severity of thought disturbance (t=2.81, p=.005) and severity

of cognitive impairments (t=2.62, p=.009) significantly

predicted self-care deficits. The positive relationship found suggests that as severity of thought disturbance and cognitive impairments increase, severity of self-care deficits also increase.

A multiple regression analysis used to test work/school problems as the dependent variable indicated that the general multiple regression model was not significant ($F=2.28$, $df=10,159$, $p=.016$). Therefore, all independent variables combined did not significantly predict work/school problems. R^2 for this general multiple regression model was .12, indicating that only approximately 12% of the variance in work/school problems were accounted for by the independent variables used. Specific multiple regression tests were not used to test the relationship between work/school problems and each independent variable since the general model was not significant.

Results for the dependent variable interpersonal problems showed that the general multiple regression model was significant ($F=10.28$, $df=10,159$, $p=.0001$). Therefore, when all independent variables were combined, the model significantly predicted ratings on interpersonal problems. Based on results, R^2 for this model was .39, indicating that approximately 39% of the variance in interpersonal problems were accounted for by the independent variables. Specific multiple regression tests revealed that years of treatment ($t=3.19$, $p=.001$), severity of cognitive impairments ($t=3.23$, $p=.001$), and severity of traumatic stress ($t=2.70$, $p=.007$)

all significantly predicted severity of interpersonal
problems. The positive relationship suggests that as years
of treatment, severity of cognitive impairments, and severity
of traumatic stress increase, severity of interpersonal
problems also increase. Moreover, cognitive impairments had
the strongest influence on interpersonal problems; as ratings
on cognitive impairments increased one point, ratings on
interpersonal problems increased .33 points. Table 5
displays results of specific multiple regression tests on the
dependent variable interpersonal problems.

Table 5. Results of Multiple Regression Tests on Dependent
Variable Interpersonal Problems

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	-.03	-.19	.845
SUMD Item 2	-.05	-.41	.679
SUMD Item 3	.14	1.19	.236
Years Treatment	.05	3.19	.001*
Depression	.07	.81	.416
Hyper Affect	-.06	-.67	.505
Cognitive Impairments	.33	3.24	.001*
Traumatic Stress	.24	2.70	.007*
Anxiety	.13	1.49	.138
Disturbed Thought Processes	.14	1.66	.099

*p<.01

Results for the dependent variable family relationship
problems showed that the general multiple regression model
was significant (F=3.37, df=10,159, p=.0005). Thus, when all
independent variables were used simultaneously, the model was
significantly related to family relationship problems.
However, specific multiple regression tests showed that no

independent variable alone significantly predicted family relationship problems. Moreover, R^2 for this model was only .17, indicating that only 17% of the variance in family relationship problems were accounted for by the independent variables. Table 6 displays results of specific multiple regression tests on the dependent variable family relationship problems.

Table 6. Results of Multiple Regression Tests on Dependent Variable Family Relationship Problems

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	-.07	-.55	.584
SUMD Item 2	-.11	-.98	.328
SUMD Item 3	.08	.66	.513
Years Treatment	-.00	-.45	.655
Depression	.07	.82	.415
Hyper Affect	.05	.52	.607
Cognitive Impairments	.19	1.77	.078
Traumatic Stress	.09	.97	.332
Anxiety	.17	1.85	.066
Disturbed Thought Processes	.05	.59	.551

Results for the dependent variable family environment problems showed that the general multiple regression model was significant (F=2.53, df=10,159, p=.0075). However, R^2 for this model was only .14, indicating that approximately 14% of the variance in family environment problems were accounted for by the independent variables included. Specific multiple regression tests showed that only degree of traumatic stress (t=2.86, p=.004) was independently predictive of family environment problems. The positive

relationship found suggests that as traumatic stress increases, severity of family environment problems also increases. In addition, based on results reported above, traumatic stress had the most influence on family environment problems; as severity of traumatic stress increased one point, severity of family environment problems increased .22 points. Table 7 displays results of specific multiple regression tests on the dependent variable family environment problems.

Table 7. Results of Multiple Regression Tests on Dependent Variable Family Environment Problems

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	.03	.28	.779
SUMD Item 2	-.02	-.27	.784
SUMD Item 3	.07	.74	.461
Years Treatment	.00	.64	.526
Depression	.07	.93	.356
Hyper Affect	.16	2.10	.038
Cognitive Impairments	.00	.07	.943
Traumatic Stress	.22	2.86	.004*
Anxiety	-.07	-.90	.369
Disturbed Thought Processes	.06	.80	.424

*p<.01

For the dependent variable poor adult daily living skills, the general multiple regression model was significant (F=6.98, df=10,159, p=.0001). For this general model the R^2 was .30, which suggests that approximately 30% of the variance in poor adult daily living skills was accounted for by the independent variables used in this model. Specific multiple regression tests indicated that only severity of

cognitive impairments (t=4.83, p=.0001) significantly predicted poor adult daily living skills. As cognitive impairments increased, so did problems with adult daily living skills. Specifically, as ratings on cognitive impairments increased by one point, ratings on poor adult daily living skills increased by .57 points. Table 8 shows results of specific multiple regression tests on the dependent variable poor adult daily living skills.

Table 8. Results of Multiple Regression Tests on Dependent Variable Poor Adult Daily Living Skills

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	.07	.49	.623
SUMD Item 2	-.04	-.36	.715
SUMD Item 3	.01	.08	.938
Years Treatment	.02	1.07	.287
Depression	.05	.54	.590
Hyper Affect	.07	.71	.487
Cognitive Impairments	.57	4.83	.001*
Traumatic Stress	.19	1.85	.066
Anxiety	-.05	-.57	.571
Disturbed Thought Processes	-.03	-.32	.745

*p<.01

Results for the dependent variable dangerousness to self showed that the general multiple regression model was significant (F=8.44, df=10,159, p=.0001). R^2 for this model was .35, indicating that approximately 35% of the variance in dangerousness to self was accounted for by the independent variables. Specific multiple regression tests revealed that increased insight into the need for treatment (SUMD item 2) (t=-3.02, p=.002), less years of treatment (t=-2.78,

p=.006), and severity of depression (t=6.26, p=.0001) significantly predicted dangerousness to self. As insight into the need for treatment and severity of depression increased, and as years of treatment decreased, dangerousness to self increased. Table 9 lists results of specific multiple regression tests on the dependent variable dangerousness to self.

Table 9. Results of Multiple Regression Tests on Dependent Variable Dangerousness to Self

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	.13	1.32	.186
SUMD Item 2	-.25	-3.02	.002*
SUMD Item 3	.05	.61	.540
Years Treatment	-.03	-2.78	.006*
Depression	.39	6.26	.001*
Hyper Affect	-.05	-.81	.420
Cognitive Impairments	.04	.51	.613
Traumatic Stress	.09	1.36	.176
Anxiety	-.02	-.27	.784
Disturbed Thought Processes	-.02	-.35	.727

*p<.01

Regarding the dependent variable dangerousness to others, results indicated that the general multiple regression model was significant (F=6.27, df=10,159, p=.0001). For this model R^2 was .28; thus, approximately 28% of the variance in dangerousness to self was accounted for by the independent variables. Results of specific multiple regression tests suggest that poor insight into the need for treatment (SUMD item 3) (t=2.67, p=.008) and hyper affect (t=3.86, p=.0001) significantly predicted severity of

dangerousness to others. As these symptoms increased, so did dangerousness to others. Specifically, as poor insight and hyper affect each increased by 1 point, dangerousness to others increased by .29 and .32 points, respectively. Table 10 displays results of specific multiple regression tests on the dependent variable dangerousness to others.

Table 10. Results of Multiple Regression Tests on Dependent Variable Dangerousness to Others

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	.02	.18	.854
SUMD Item 2	-.09	-.88	.381
SUMD Item 3	.29	2.67	.008*
Years Treatment	-.01	-.73	.468
Depression	.00	.09	.927
Hyper Affect	.32	3.86	.001*
Cognitive Impairments	-.16	-1.69	.092
Traumatic Stress	-.10	-1.20	.232
Anxiety	.12	1.44	.150
Disturbed Thought Processes	.17	2.16	.032

*p<.01

Results for the dependent variable security/management needs showed that the general multiple regression model was significant (F=12.34, df=10,159, p=.0001). R^2 for this model was .44, indicating that approximately 44% of the variance in security/management needs was accounted for by the variables included in this study. Specific multiple regression tests revealed that both hyper affect (t=5.54, p=.0001) and cognitive impairments (t=3.39, p=.0001) significantly predicted degree of security/management needs. The positive relationship found suggests that as hyper affect and

cognitive impairments increase, security/management needs
also increase. In this model, as hyper affect and cognitive
impairments increased on point, security/management needs
increased .40 and .28 points, respectively. Table 11
displays results of specific multiple regression tests on the
dependent variable security/management needs.

Table 11. Results of Multiple Regression Tests on Dependent
Variable Security/Management Needs

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	-.06	-.53	.597
SUMD Item 2	-.05	-.58	.562
SUMD Item 3	.09	.92	.359
Years Treatment	-.01	-.77	.440
Depression	.08	1.19	.235
Hyper Affect	.40	5.54	.001*
Cognitive Impairments	.28	3.39	.001*
Traumatic Stress	-.06	-.88	.376
Anxiety	-.06	-.83	.407
Disturbed Thought Processes	.08	1.20	.232

*p<.01

Table 12. Results of Multiple Regression Tests on Dependent
Variable Socio-Legal Problems

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	-.10	-.84	.405
SUMD Item 2	-.13	-1.27	.205
SUMD Item 3	.09	.87	.383
Years Treatment	-.03	-2.24	.026
Depression	-.06	-.88	.377
Hyper Affect	.17	2.14	.034
Cognitive Impairments	.14	1.53	.128
Traumatic Stress	-.19	-2.34	.021
Anxiety	.10	1.23	.219
Disturbed Thought Processes	.03	.35	.728

Results also show that, for the dependent variable socio-legal problems, the general multiple regression model was significant (F=3.92, df=10,159, p=.0001). Thus, when all independent variables were analyzed simultaneously, the model was found to be significant. However, as shown above in Table 12, when specific tests were conducted, no independent variable predicted socio-legal problems. That is, no independent variable alone was related to socio-legal problems when the other independent variables were controlled.

Based on the results reported above, null hypothesis 2 was rejected. This null hypothesis stated that there was no relationship between insight (measured using the SUMD) and any psychosocial impairment category. Evidence was found that insight into the need for treatment (SUMD item 2) predicted dangerousness to self, and insight into consequences of the mental disorder (SUMD item 3) predicted dangerousness to others. Thus, insight is significantly related to certain areas of psychosocial impairment in schizophrenic clients.

Null hypothesis 5 was also rejected based on results found in this study. Null hypothesis 5 stated that no relationship exists between demographic characteristics and psychosocial impairments. But it was found that total years of treatment predicted both interpersonal problems and dangerousness to self in this sample. Therefore, demographic

characteristics are related to certain psychosocial impairments in schizophrenic clients.

Finally, null hypothesis 7 was rejected based on results of this study. This null hypothesis states that symptoms of illness are not related to psychosocial impairments. However, several significant results in this area were found: (a) cognitive impairments and thought disturbance predicted self-care deficits, (b) cognitive impairments and traumatic stress predicted interpersonal problems, (c) traumatic stress predicted family environment problems, (d) cognitive impairments predicted poor adult daily living skills, (e) depression predicted dangerousness to self, (f) hyper affect predicted dangerousness to others, and (g) cognitive impairments and hyper affect predicted security/management needs. Thus, symptoms of illness are significantly related to several areas of psychosocial impairment in schizophrenic clients.

Results of Multiple Regression Equations for FARS Symptom Areas

A multiple regression analysis used to test cognitive impairments as the dependent variable indicated that the general multiple regression model was significant (F=15.91, df=10,159, p=.0001). Therefore, when all independent variables were combined, the model significantly predicted ratings on cognitive impairments. Results showed that R^2 for this general multiple regression model was .28, indicating

that approximately 28% of the variance in cognitive
impairments were accounted for by the independent variables
included. Results of specific multiple regression tests
revealed that only poor insight into having a mental disorder
(SUMD item 1) (t=5.22, p=.0001) predicted severity of
cognitive impairments. The positive relationship found
suggests that as poor insight increases, cognitive
impairments also increase. In addition, for each unit
increase in SUMD item 1 cognitive impairments increased .66
points. Table 13 shows results of specific multiple
regression tests on the dependent variable cognitive
impairments.

Table 13. Results of Multiple Regression Tests on Dependent
Variable Cognitive Impairments

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	.66	5.22	.001*
SUMD Item 2	-.19	-1.72	.087
SUMD Item 3	.21	1.85	.065
Years Treatment	.03	2.10	.037

*p<.01

Results showed that, when testing the dependent variable
thought disturbance, the general multiple regression model
was significant (F=14.44, df=10,159, p=.0001). Therefore,
when all independent variables were combined, the model
significantly predicted ratings on thought disturbance. R^2
for the multiple regression model was .26, suggesting that
approximately 26% of the variance in thought disturbance was

accounted for by the independent variables. Results of specific multiple regression tests showed that poor insight into having a mental disorder (SUMD item 1) (t=3.57, p=.0001), poor insight into the consequences of the mental disorder (SUMD item 3) (t=2.77, p=.006), and total years of treatment (t=2.64, p=.009) all predicted severity of thought disturbance. The positive relationship found suggests that as each of these variables increases, so does the severity of thought disturbance. Table 14 shows results of specific multiple regression tests on the dependent variable thought disturbance.

Table 14. Results of Multiple Regression Tests on Dependent Variable Thought Disturbance

Independent Variable	Parameter Estimate	t-value	p-value
SUMD Item 1	.52	3.57	.001*
SUMD Item 2	-.07	-.53	.599
SUMD Item 3	.37	2.77	.006*
Years Treatment	.05	2.64	.009*

*p<.01

A multiple regression analysis used to test traumatic stress as the dependent variable indicated that the general multiple regression model was not significant (F=2.86, df=10,159, p=.025). Therefore, when all independent variables were combined, the model did not significantly predict ratings on traumatic stress. Results also showed that R^2 for the general multiple regression model was only .06, indicating that only 6% of the variance in traumatic

stress was accounted for by the independent variables included. Specific tests were not used since the general model was not significant.

Results showed that the multiple regression analysis used to test anxiety as the dependent variable was not significant ($F=2.00$, $df=10,159$, $p=.097$). Therefore, when all independent variables were combined, the model did not significantly predict ratings on anxiety. Moreover, R^2 for the general multiple regression model was only .04, indicating that only 4% of the variance in anxiety was accounted for by the independent variables included. Once again, specific tests were not used since the general model was not significant.

When a multiple regression analysis was used to test the dependent variable hyper affect, results were not significant ($F=2.25$, $df=10,159$, $p=.066$). Thus, all independent variables were combined did not significantly predict ratings on hyper affect. R^2 for this general multiple regression model was only .05, indicating that only 5% of the variance in hyper affect was accounted for by all independent variables used. Since the general model was non-significant, specific tests were not used.

Finally, a multiple regression analysis used to test depression as the dependent variable indicated that the general multiple regression model was not significant ($F=2.38$, $df=10,159$, $p=.053$). Therefore, when all independent variables were combined, the model did not significantly

predict ratings on depression. Results also showed that R^2 for the general multiple regression model was only .05, indicating that only 5% of the variance in depression was accounted for by the independent variables included. Specific tests were not used since the general model was not significant.

In addition to the results reported above which were based on direct affects of each independent variable on each dependent variable, one important indirect affect was noted. That is, a result based on an extrapolation of the data was seen which bears on the outcome of this research. To summarize this indirect affect, it was found that insight may be related to certain psychosocial impairments secondarily. This finding is in regard to the fact that degree of insight is significantly related to severity of cognitive impairments (increased insight was correlated with less severe cognitive deficits). And cognitive impairments were directly related to the levels of certain psychosocial impairments (e.g., adult daily living skills, self-care deficits, interpersonal skills, and global functioning). Thus, insight may secondarily (i.e., indirectly) be related to these psychosocial variables as well. Clearly additional research in this area is warranted.

Based on the results reported above, null hypothesis 1 was rejected. This null hypothesis stated that insight was not related to symptoms of illness. However, results showed that (a) severity of thought disturbance was predicted by

poor insight into having a mental disorder (SUMD item 1) and poor insight into the consequences of the mental disorder (SUMD item 3), and (b) severity of cognitive impairments were predicted by poor insight into having a mental disorder (SUMD item 1). Therefore, insight is significantly related to certain symptoms of illness in schizophrenic clients.

Null hypothesis 4 was also rejected based on results reported above. This hypothesis stated that demographic factors were not related to symptoms of illness. This study found that severity of thought disturbance was predicted by total years of treatment, however. Thus, demographic factors are significantly related to certain symptoms of illness in schizophrenic clients.

In summary, null hypotheses 1, 2, 4, 5, 7, and 8 were rejected, and null hypotheses 3 and 6 were not rejected.

CHAPTER 5
DISCUSSION, IMPLICATIONS, RECOMMENDATIONS, AND SUMMARY

Data for this study were gathered from a large community mental health agency in Florida. Data consisted of various clinical ratings made by experienced and trained practitioners specializing in severe mental illness. All subjects had a confirmed psychotic disorder diagnosis made by both the raters and board-certified psychiatrists. In addition, all raters were blind to the purposes of the study. The purpose of this study was to test the relationship among degree of insight, overall functioning, severity of psychosocial impairments, and severity of illness in psychotic clients.

Participants in this study were characteristic of psychotic clients in general, based on national statistics. Participants were generally unemployed and from a lower socioeconomic class. These statistics are similar to other national studies in this area (Amador et al., 1994). Participants were generally middle aged and most were unmarried, a characteristic also found by other investigators (Sanguineti et al., 1996). Slightly more participants were male than female, and most had a long-term history of treatment. These characteristics are definitive of a psychotic population (APA, 1994; WHO, 1995). Finally, in

terms of specific diagnostic categories, the vast majority
had schizophrenia. This statistic is in agreement with
expectations, since schizophrenia is regarded as the most
common psychotic disorder (APA, 1994, 1997). Therefore, this
sample seems generalizable to the national population of
psychotic clients.

Discussion of Frequency Distributions

In terms of symptomatology, participants showed the most
severe deficits in thought disturbance (positive psychotic
symptoms) and cognitive impairments. These 2 symptoms are
widely regarded as the most prominent symptoms related to
psychosis, especially schizophrenia (APA, 1994; WHO, 1995).
A moderate degree of anxiety was also observed in this
sample, a finding expected in clients with psychotic
disorders (Kay, 1991). In regard to psychosocial
impairments, the most prominent deficits were in the areas of
interpersonal problems and work/school problems. This
finding is in agreement with criteria outlined by the
American Psychiatric Association (1994), which states that
severe social and occupational dysfunctions are a consequence
of psychosis. Finally, ratings of insight showed that, on
average, participants were somewhat aware of their mental
disorder, the consequences of their disorder, and the need
for treatment. That is, poor insight was observed, but on
average subjects manifested some insight into their illness

(as evidenced by average ratings of 2.9, 3.2, and 2.3 on items 1, 2, and 3 of the SUMD). Amador et al. (1994) found results similar to these when assessing a national sample of psychotic clients. They report average ratings of 2.9, 2.9, and 2.7 on items 1, 2, and 3 of the SUMD.

Discussion of GAF Score Results

In order to examine the relationship between insight, illness, and functioning, the writer first tested overall functioning in relation to degree of insight, demographic factors, and symptoms of illness. Results showed that neither degree of insight nor demographics were significantly related to global functioning. Therefore, clinical assessments of clients' insight or of total years of treatment may not predict overall functioning at any particular point in time. These results are contrary to those of Peralta and Cuesta (1994). These authors found that insight was related to global functioning. However, these investigators used a small sample size and did not control for most factors included in this study. In addition, different instruments were used, making valid comparisons difficult. It is the opinion of the writer that many factors interact when influencing overall functioning, and that insight or years of treatment alone cannot independently predict global impairments. Possibly symptomatology rather

than general insight or years of treatment can better predict
a significant decline in global functioning.

In fact, based on results of this study, certain
symptoms of illness were significantly related to global
functioning. Specifically, severity of hyper affect and
severity of thought disturbance both predicted clients'
global functioning. It was found that as hyper affect and
thought disturbance increase, level of overall functioning
decreases. In this study, hyper affect refers to a
combination of pressured speech, sleep deficits, elevated
mood, overactivity, agitation, and mood swings. Thought
disturbance refers to a combination of being illogical,
paranoid, delusional, and hallucinatory. Both of these
categories are characteristic of positive psychotic symptoms
in psychotic clients. These results seem logical, since it
is reasonable to assume that a client who exhibits increased
psychotic symptomatology will have more difficulty in overall
functioning. Moreover, the types of symptoms predictive of a
decline in global functioning (i.e., hyper affect and thought
disorder) are the symptoms which can cause the most
impairment in social and occupational functioning. Severe
hyper affect decreases a client's ability to behave in
socially appropriate ways, and severe thought disturbance can
cause social isolation, paranoia, and inability to interact
with others effectively. It is interesting to note, however,
that other symptoms of illness assessed in this study did not
relate to overall functioning. For example, severity of

depression and severity of anxiety were not associated with global functioning. Possibly these symptoms simply do not affect the client's ability to apply needed functional and social skills to the same degree as do severe hyper affect or thought disturbance. Or perhaps clients can more easily obtain help in these areas since they are secondary to the psychotic process; that is, others can more objectively observe and empathize with depression and anxiety rather than idiosyncratic symptoms of thought disorder. Regarding the symptoms of thought disturbance and hyper affect, it may also be more difficult for others to intervene effectively, thus leading to increased positive symptoms and an inability to function day-to-day.

Discussion of FARS Psychosocial Item Results

The second area tested in this study was whether other variables were related to psychosocial impairments. Various psychosocial impairments were tested in relation to degree of insight, severity of symptoms, and demographic factors. Results suggested that certain forms of insight were related to certain psychosocial impairments. For example, increased insight into the need for treatment (e.g., medications or counseling) predicted increased suicidality. This finding is similar to results reported by Amador, Friedman, Kasapis, Yale, Flaum, and Gorman (1996). These authors also found that increased insight into certain symptoms may predict

increased dangerousness to self. Amador et al. (1996) speculate that perhaps gaining more awareness of the negative results of psychosis leads to hopelessness and demoralization, culminating in suicidality. Since this study tested overall suicidality rather than specific dimensions (e.g., degree of hopelessness, poor outlook of the future), this hypothesis could not be confirmed. If further research focused on specific features of suicidality then the reasons for this association may become more evident.

Results of this study also suggest that less insight into the consequences of the mental disorder was associated with increased dangerousness to others. That is, when a client is not aware of the results of their illness (e.g., hospitalizations or jail) they manifest an increased likelihood of threatening or harming others. No other research in the area of insight and homicidality has been found, so comparisons with these results could not be made. However, the writer speculates that clients with less insight into the consequences of their disorder will also be less apt to seek help or to act in socially appropriate ways. This could result in an exacerbation of psychotic symptoms, leading to increased delusions, hallucinations, paranoia, irritability, and restlessness. Ultimately these symptoms may result in a greater risk of harming others.

In terms of demographic factors and psychosocial impairments, results indicated that more years of treatment was predictive of greater interpersonal problems.

Interpersonal problems were characterized as poor social skills and difficulty establishing and maintaining relationships. These results have not been found in other studies, since no study found to date has tested the relationship between years of treatment of psychosocial variables. However, based on clinical knowledge, years of treatment may be indicative of certain client characteristics which would relate to poor interpersonal skills. For example, clients with a long history of psychosis (i.e., chronic clients) may manifest global deficits in social and occupational functioning due to negative psychotic symptoms. These negative symptoms and global impairments may culminate social isolation and poor social skills. Since the relationship between global functioning and psychosocial impairments was not tested in this study, this hypothesis could not be confirmed. However, it can be assumed that increased years of treatment (i.e., more chronic clients) would manifest poor social skills due to the long-term debilitating nature of the illness.

A second finding regarding demographic factors was that a negative relationship exists between duration of treatment and dangerousness to self; that is, increased suicidality was related to a decrease in total years of treatment. No other study found to date has focused on the relationship between duration of treatment and suicidality, however several studies have looked at the relationship between age and suicidal behaviors. Since psychosis is usually a life-long

affliction which manifests in early adulthood (APA, 1994), it can be assumed that those clients with less total years of treatment were on average younger in age. Therefore, the negative relationship found in this study may mean that younger clients (i.e., those that are less chronic) evidence a greater risk of suicidality. This finding is supported by Breier and Astrachan, (1984) who report that younger, less chronic clients are at greater risk for suicidality. One might hypothesize that a younger client having less experience dealing with psychosis may be both unprepared to cope with the illness and profoundly dejected at the possibility of a lifetime with the disorder.

In regard to symptoms of illness and psychosocial impairments, several significant results were found in this study. Increased self-care deficits were related to increased cognitive impairments and increased thought disturbance. In addition, poor adult daily living skills were related to increased cognitive impairments as well. Cognitive impairments were categorized as a combination of poor memory, poor concentration, poor attention, and impaired judgment. In essence, cognitive impairments are negative psychotic symptoms which affect the clients ability to attend to, focus on, and follow through with daily activities. The writer found no other research on cognitive impairments and psychosocial impairments, however it can be hypothesized that amotivation, avolition, and anhedonia associated with impaired cognitive processes can lead to poor daily living

skills. Without the cognitive ability and stamina to engage in and follow through with focused and often monotonous daily activities, self-care skills will likely suffer.

In this study, there was a positive relationship between dysfunctional family environment and traumatic stress; increased family environment problems were associated with increased traumatic stress. Family environment problems can include variables such as family instability, separations or divorces, legal of custody problems, and a death in the family. Even though there is no research in this area, it would seem that family environment problems could be extremely stressful for psychotic clients. Psychotic clients usually demonstrate a reduced ability to cope with and adapt to psychosocial stressors (Kavanagh, 1992). Moreover, in the writers experience, psychotic clients seem to be negatively (and often traumatically) affected by everyday stressors (e.g., changes in family roles or the physical environment at home). Thus, it seems logical that if a psychotic client was living in a dysfunctional family environment, they would experience a greater than average degree of traumatic stress.

Another finding was that interpersonal problems were associated with both cognitive impairments and severity of traumatic stress. Again, there has been no research to date on this topic. As a negative symptom, cognitive problems (linked to slow processing and poor judgment) would likely lead to a reduced ability to establish and maintain relationships. However, the relationship between traumatic

stress and interpersonal problems may be more complex. Perhaps clients who have suffered from abuse, neglect, or other traumatic circumstances are conditioned to fear social situations. Or perhaps the traumatic stress linked to a dysfunctional family environment can cause poor interpersonal skills. Hypothetically, these clients may be suspicious and distrusting of others, thus avoiding social contact. What is clear is that experiencing traumatic stress in combination with deficits in processing and judgment leads to interpersonal skills problems.

The one symptom which predicted dangerousness to self in this study was depression. This finding is similar to other studies focused on symptoms of illness and suicidality in psychotic clients (Drake & Cotton, 1986). Suicidality is common among psychotic clients (APA, 1997), and one of the strongest predictors of suicidality in this population is severe depression. These findings are not completely understood, but most investigators believe that the emotional pain associated with severe depression, as well as the hopeless outlook of the disorder, leads to suicidal ideation and behaviors (Drake & Cotton, 1986). This is especially true when clients are younger, less chronic, and more insightful concerning their disorder.

On the other hand, dangerousness to others was predicted by hyper affect. There were no other studies found in this area, but based on clinical knowledge it seems that when psychotic clients manifest more agitation and mood swings

other individuals may be at risk of harm. Hyper affect can
cause uncontrollable behaviors which may be directed
outwardly at other (especially in paranoid schizophrenia).
This may be particularly evident when a psychotic client has
poor insight into their disorder or the need for treatment.
Relatedly, security/management needs were also predicted by
hyper affect as well as cognitive impairments.
Security/management needs refer to protection from others,
the need for restraints or seclusion, or involuntary
commitment. Therefore, it would seem that psychotic clients
who manifest severe hyper affect are not only more likely to
harm others, they are in need of security precautions.
Combined with poor concentration and poor judgment associated
with cognitive impairments, psychotic clients who are manic
may need involuntary treatment. This could be due to a
general decompensation related to the illness or lack of
compliance with medications. In either case, it is clear
that cognitive deficits coupled with hyper affect may lead to
a need for management or restraint to protect the public
welfare.

Discussion of FARS Symptom Item Results

Finally, this study tested the relationship of symptoms
of illness with both insight and demographic factors. It was
found that severity of thought disturbance was related to
both insight and total years of treatment. Specifically,

more severe thought disturbance (positive symptomatology) was associated with less awareness of having a mental disorder, less awareness of the consequences of that disorder, and more years of treatment. The relationship between insight, illness, and treatment has been studied by various investigators recently, however results have thus far been inconclusive (Schwartz, in press). The findings of this study are inconsistent with those of McEvoy et al. (1989) and Michalakeas et al. (1994). These researchers reported that there was no relationship between insight and illness in psychotic clients. However, other studies found that such a relationship does indeed exist. For example, Amador et al. (1994), Takai et al. (1992), and O'Connor and Herrman (1993) reported that decreased insight was related to increased positive symptomatology. These findings are in agreement with results from this study. Therefore, clients showing severe thought disturbance (i.e., hallucinations, delusions, paranoia) may not only have a long history of treatment, they may also be unaware of their disorder or the need for treatment.

Another finding of this study in regard to insight and illness was that cognitive impairments were related to poor insight. Specifically, less awareness of having a psychotic disorder was associated with more severe cognitive impairments. This finding is consistent with the majority of research and theory in this area. Even though one recent investigation found that there was no significant

relationship between cognitive deficits and poor insight (Kemp & David, 1996), other research confirms the findings of the present study (Lysaker & Bell, 1994; Takai et al., 1992; Young et al., 1993).

Discussion of Results in Relation to Theory of Insight

Takai et al. (1992) and Young et al. (1993) assert that there are definitely links between cognitive abnormalities and poor insight in psychotic clients. Based on MRI scans, CAT scans, and neurocognitive tests, is has been found that clients with poor insight also demonstrate global cognitive impairments similar to those found in the present study (Amador & Strauss, 1993a). These findings may be linked to other research showing that pervasive neurocognitive impairments are characteristics of psychosis (Flashman et al., 1996). Studies suggest that physiological defects (especially in the frontal lobes) may lead to cognitive disruption and self-awareness deficits (Hoffman & McGlashan, 1993; Todd et al., 1996). However, as Amador et al. (1991) explain, the specific pathway linking neurocognitive problems with poor insight is not yet known.

Markova and Berrios (1992) explain that there seems to be a complex interactive relationship between insight and illness in psychosis. These theorists proposed that insight is a multidimensional construct which occurs on a continuum. Moreover, insight is seen as phenomenon which incorporates

the client's idiosyncratic personality. But they assert that a certain sequence mapping the evolution of psychotic symptoms and poor insight can be developed (Markova and Berrios, 1995a). According to this theory, odd beliefs, interpersonal problems, and minor personality changes first occur in the client. During this stage neurocognitive abnormalities begin to disorganize the individual. Then, during stage two, minor psychotic symptoms begin and the person develops a psychotically-organized personality. During stage two general insight may or may not develop; if general insight does not develop then it is likely due to the neurocognitive abnormalities which disorganized the client in stage one. Finally, during stage three, full, active psychotic symptoms emerge and lead to psychosocial dysfunctions. Thus, in their theory Markova and Berrios (1995a) propose that poor insight may manifest in clients with more severe cognitive impairments or thought disturbance (both symptoms which occur at the beginning stages of this long-term illness).

Results of this study seem to support the theory developed by Markova and Berrios (1995a). Findings showed that poor insight is significantly related to thought disturbance and cognitive impairments. Those clients with more severe positive symptoms and more severe cognitive impairments also demonstrated less insight into having a mental disorder and needing treatment. Thus, these results

provide further evidence that neurocognitive deficits are linked to poor insight in psychosis.

In addition, results of this study are consistent with the theory about psychosis in general. Thought disturbance is regarded as the defining feature of psychosis (Matthysse, 1996). However, it is unclear how thought disturbance related to other associated features of the disorder. This study showed that severity of thought disturbance was related to global functioning, self-care deficits, poor insight, and more years of treatment. Thus, it seems that increased positive symptomatology can predict less awareness of the disorder and the need for treatment, increased chronicity, and deficits in basic and overall functional skills. The writer hypothesizes that there is in fact a sequence of stages leading to different deficits and impairments which negatively affect the individual. These stages likely result from a combination of biological and environmental factors linked to psychosis. This sequence may proceed as follows: (a) neurocognitive deficits (cognitive impairments) may have a disorganizing affect leading to poor insight into illness; (b) a combination of cognitive problems and poor insight may cause non-compliance with treatment and/or worse symptoms of illness (e.g., more severe thought disturbance and hyper affect); (c) these worsening symptoms may lead specifically to severe psychosocial impairments (e.g., self-care deficits, suicidality, dangerousness to others); finally (d) these psychosocial impairments may culminate poor global

functioning, a need for long-term treatment, and intermittent
security/management needs.

Implications

Results of this study on the relationship among insight,
illness, and psychosocial impairments has important
implications for theory, training, practice, and research
concerning psychotic disorders.

Theory

A neurocognitive theory was postulated in this study.
The neurocognitive theory proposed stated that poor insight
in psychotic clients is related to underlying cognitive
abnormalities (i.e., brain dysfunctions) which ultimately may
lead to unawareness of certain aspects of the disorder. The
theory assumes that insight, symptoms of illness, and
functioning in psychotic clients are interrelated. Moreover,
there may be a sequential evolution of insight, illness, and
psychosocial impairments in psychotic clients which
corresponds to the actual stages of the illness itself. As
the illness first begins (the prodromal stage) changes in
brain chemistry and personality develop. During this period
the client may begin to notice personal changes,
idiosyncrasies, or deficiencies. With awareness of these
personality changes, general insight into the illness may be
attained. As full symptoms appear and severe social and

occupational impairments emerge (the active stage) the individual may gain specific insight into their psychotic symptoms (e.g., insight into hallucinations). However, specific insight is dependent on first achieving general insight (i.e., that a mental illness exists in the first place). And, as stated previously, degree of general insight is theoretically correlated with severity of neurocognitive deficits; the more severe the cognitive impairment, the less insight will be attained. Results of this study provide additional support for this theory since it was found that degree of insight was negatively related to severity of cognitive and thought disturbances. Thus, it seems that self-awareness mechanisms are somehow related to intellectual, thought, and perceptual abilities, and that these abilities are disrupted in psychotic clients leading to poor insight.

Training

Since poor insight is a common feature of psychosis, and since poor insight can lead to non-compliance with treatment (Cuffel et al., 1996) and a worse treatment outcome (Amador et al., 1991), it is important for mental health counselors to be knowledgeable about this topic. Even though a general description of diagnostic and treatment strategies in psychotic clients is taught to counselors-in-training, additional information could be included in teaching modules.

This additional information could include prevalence rates of poor insight in psychotic clients, how to assess degree of insight, the theory concerning poor insight in psychosis, the consequences of poor insight into psychosis, and techniques of educating clients to increase insight in psychotic clients. If counselors-in-training (via formal education) and active practitioners (via professional trainings and workshops) could increase their diagnostic and clinical skills in this area, then clients may have an increased likelihood of receiving specialized treatment in reducing the negative consequences of poor insight.

For example, Othmer and Othmer (1994) assert that it is important to evaluate a client's level of insight from the start of a clinical interview. These authors also explain that monitoring degree of insight should occur whenever new symptoms of illness emerge or when present symptoms worsen. This can be accomplished using a structured interview technique or simple questions concerning the client's illness (e.g., 'What do you think about . . .?' or 'Do you consider these experiences as normal for you?'). Based on responses to these basic questions a clinician can determine if a client believes that symptoms are reality-based or part of disorder which can potentially can be improved through treatment. If severely poor insight is observed, then the client may have a more broad-ranged disorder with other potentially harmful features which should be assessed (e.g., dangerousness to self or others and more intense positive

symptoms). In support of the theory described above, Othmer
and Othmer (1994) state that

> the reason is simple: insight is based on a cognitive
> awareness of consensual reality and this process is
> disturbed in the delusional hallucinatory state. If a
> patient hallucinates or displays delusional thinking,
> the pathological process affects the very function
> necessary to recognize disordered perception and
> thinking is disturbed. (p. 149)

Practice

Mental health counselors in practice should be sensitive
to the signs and symptoms of psychosis. Given the
commonality of psychotic disorders, it is not unusual for
mental health counselors to encounter a psychotic client.
Moreover, practitioners should emphasize an evaluation of
degree of insight when interviewing a client suspected of
having a psychotic disorder. Determining degree of insight
may also provide information concerning severity of thought
disorder, severity of cognitive impairments, future treatment
compliance, and treatment outcome (Schwartz, in press). In
short, a full insight assessment may enhance a clinician's
ability to accurately diagnose a psychotic disorder (Amador
et al., 1991).

Furthermore, after insight has been assessed, the
clinician may be better equipped to treat a psychotic client.
As McWilliams (1994) explains, psychotic clients often
demonstrate primitive defense mechanisms (e.g., denial and
social withdrawal) due to their psychotic symptoms. A

clinician must understand the mechanisms accounting for such behaviors. Then, basic counseling skills can effectively be applied to the treatment of such clients. These skills include empathic concern, respect for the client, realistic hopefullness, reliability, and self-awareness on the part of the counselor (Greben, 1984).

The practice of mental health counseling includes an application of psychological and human development principles in order to facilitate psychosocial adjustment, diagnose and treat mental and emotional disorders, and implement counseling treatment interventions. In terms of psychotic clients, all of these applications can be improved with the inclusion of insight into treatment strategies. Psychosocial interventions are important in the treatment of psychotic clients (APA, 1997) since most psychotic clients need some combination of individual and group counseling, family interventions, and social skills training (Kavanagh, 1992). If a psychotic client is psychologically stable, then increasing insight may lead to reductions in daily impairments and a reduced likelihood of relapse. If a psychotic client is in crisis then improving insight may lessen dangerousness to self or others.

The writer recommends that clinicians attempt to increase global and specific insight in psychotic clients. However, this intervention must be based on a foundation of comfort, safety, and mutual respect within the therapeutic relationship. If a solid therapeutic relationship is

established, then clinicians can begin to help clients gain
insight into their illness. This can be accomplished through
direct education about mental illness (e.g., psychosis),
gradual reflection of thoughts and feelings related to
certain situations (e.g., understanding suspiciousness
associated with a paranoid delusion), or in vivo
desensitization (e.g., helping clients confront
fears/symptoms directly with therapeutic support/guidance).

Research

Due to the importance of insight in the diagnosis and
treatment of psychotic disorders, more research in this area
is needed. Results of this study indicate that symptoms of
illness are related to insight in psychotic clients. But the
exact relationship still remains unknown. For example, even
though this study supports a neurocognitive basis for poor
insight, the biological or psychosocial pathway that leads to
this finding remains unclear. Therefore, further research is
warranted in regard to the etiology and genesis of poor
insight in psychosis (Markova & Berrios, 1995b).

Additional research is also needed on the psychosocial
consequences of poor insight in psychosis. This study showed
that insight was significantly related to suicidality in
psychotic clients, a finding similar to other investigations
(e.g., Amador et al., 1996). But the reasons for this
association are as yet only theoretical. If future empirical

research could extend clinical knowledge in this area,
possibly more effective primary prevention strategies can be
developed. This also applies to the relationship between
poor insight and dangerousness to others, another significant
finding in this study.

Next, theorists and practitioners should attempt to
empirically substantiate how clinicians can increase insight.
Due to the newness of this phenomenon, little research has
focused on how clients gain or lose insight. If
interventions could be developed to enhance insight among
psychotic clients, then symptoms and relapse rates may
decrease.

Finally, it may be important to empirically identify
different types of insight (e.g., stable versus transient
insight) over time. We do know that increased insight is
linked to better treatment compliance and outcome, but the
reasons for this are unclear. For example, the writer
conducted a long-term study insight and treatment outcome in
psychotic clients (Schwartz, Cohen, & Grubaugh, 1997). It
was found that clients with good insight also showed
significantly better psychosocial improvement over time.
Therefore, if insight could be increased, possibly symptoms
could decrease over an extended period of treatment. But,
since this study showed that insight is related to symptoms
of illness, and since symptoms fluctuate over time, insight
may also change day-to-day. If research could underscore why
such fluctuations occur, then clinicians may be able to

strengthen interventions focused on stabilizing insight in psychotic clients.

Recommendations

This study expanded on prior research in this area. However, if clinical knowledge and expertise are to be improved, then theory, research, and practice should be enhanced in the area of insight and psychosis. First, the writer recommends that further conceptual and theoretical work should be proposed on this topic. In order for empirical research to have a solid foundation, a firm theory about the evolution of insight in psychosis must be established. This point of view is also supported by other investigators in this area (Amador et al., 1991; David, 1990; Markova & Berrios, 1995a). Next, better assessment instruments should be developed to evaluate insight in psychotic clients. Currently there are several widely used assessment tools which employ a semi-structured interview using standardized ratings. However, personal biases and inaccurate scoring methods ultimately must affect clinical ratings. The writer recommends that researchers should continue to develop more objective measures of insight using highly operationalized descriptions of the phenomenon.

Third, empirical research in this area is often limited by methodological problems. Future research should utilize contemporary diagnostic criteria (e.g., DSM-IV) when

classifying psychotic disorders. In addition, research designs should employ large, random samples of psychotic clients (a procedure rarely used when studying psychotic clients) using a pretest-posttest design. This way, research can test differences in insight over time which can be generalized to a larger population. Finally, clinicians should attempt to develop more effective and efficient ways of increasing insight in psychotic clients. It is often difficult to help clients gain awareness of their mental disorder, and if possible the process may take an extended period of time. If practitioners could develop more effective and efficient strategies to improve insight over the short-term, length of treatment and relapse rates may be reduced.

Summary

The results of this study suggest that there is a relationship among insight, illness, and psychosocial impairments in psychotic clients. Degree of insight was related to severity of suicidality, severity of homicidality, severity of thought disturbance, and severity of cognitive impairments. In addition, total years of treatment associated with severity of interpersonal problems, severity of suicidality, and severity of thought disturbance. Finally, certain symptoms of illness were found to be predictive of several psychosocial impairments. It was

concluded that these results have important implications for theory, training, practice, and research regarding psychosis. Recommendations for enhancing theory, assessment, research, and clinical techniques were presented.

APPENDIX A

OUTLINE OF SCALE TO ASSESS UNAWARENESS OF MENTAL DISORDER

(1) Awareness of Mental Disorder - In the most general terms, does the client believe that s/he has a mental disorder or psychiatric problem?

    1=Aware: Client clearly believes s/he has a mental
       disorder.
    3=Somewhat Aware: Client is unsure whether s/he has a
       mental disorder but will entertain the idea.
    5=Unaware: Client believes s/he does not have a mental
       disorder.

(2) Awareness of the Need for Treatment - Does the client believe that s/he has a need for medications and/or counseling?

    1=Aware: Client clearly believes that medications and/or
       counseling can lessen the severity of symptoms.
    3=Somewhat Aware: Client is unsure whether medications
       and/or counseling can lessen the severity of
       symptoms but will entertain the idea.
    5=Unaware: Client believes that medications and/or
       counseling will not lessen symptoms.

(3) Awareness of the Consequences of the Mental Disorder - Does the client believe that a mental disorder leads to hospitalizations, social problems, or other negative life events?

    1=Aware: Client clearly believes that a mental disorder
       is related to negative life events.
    3=Somewhat Aware: Client is unsure whether a mental
       disorder is related to negative life events but will
       entertain the idea.
    5=Unaware: Client believes that negative life events
       have nothing to do with a mental disorder.

APPENDIX B

OUTLINE OF FUNCTIONAL ASSESSMENT RATING SCALE

Rate each symptom item or psychosocial impairment category
using the following scale:

1=no problem   3=slight problem   5=moderate problem
      7=severe problem   9=extreme problem

Symptom Items:

(1)   Depression
(2)   Hyper Affect
(3)   Cognitive Impairments
(4)   Traumatic Stress
(5)   Anxiety
(6)   Thought Disturbance

Psychosocial Impairment Categories:

(7)   Interpersonal Problems
(8)   Dysfunctional Family Environment
(9)   Work/School Problems
(10) Self-Care Deficits
(11) Dangerousness to Others
(12) Family Relationship Problems
(13) Socio-Legal Problems
(14) Poor Adult Daily Living Skills
(15) Dangerousness to Self
(16) Security/Management Needs

APPENDIX C

OUTLINE OF GLOBAL ASSESSMENT OF FUNCTIONING SCALE

Rate the client's overall functioning according to the
following scale. Consider psychological, social, and
occupational functioning on a hypothetical continuum of
mental health-illness:

100=Superior functioning - no symptoms of illness.

90=Absent or minimal symptoms - good functioning in all areas
    with no more than everyday problems or concerns.

80=If symptoms are present they are transient and expectable
    reactions to psychosocial stressors - no more than
    slight impairment in social or occupational functioning.

70=Some mild symptoms are evident - some difficultyin social
    or occupational functioning is observed.

60=Moderate symptoms- moderate difficulty in social and
    occupational functioning.

50=Serious symptoms - serious impairment in social and
    occupational functioning.

40=Impairment in reality testing - major impairment in social
    and occupational functioning.

30=Behavior is considerably influenced by delusions and
    hallucinations - serious impairment in communication and
    judgment.

20=Some danger of hurting self or others - fails to maintain
    minimal survival needs.

10=Persistent danger of hurting self or others - cannot
    survive alone.

0

LIST OF REFERENCES

Aghajanian, G. K., Foote, W. E., & Sheard, M. H. (1970). Action of psychotogenic drugs on single mid-brain raphe neurones. Journal of Pharmacological and Experimental Therapies, 171, 178-187.

Amador, X. F., Endicott, J., Flaum, M. M., Strauss, D. H., & Gorman, J. M. (1994). Validity of the Scale to Assess Unawareness of Mental Disorder: Dr. Amador and colleagues reply. American Journal of Psychiatry, 151 (12), 1844.

Amador, X. F., Flaum, M., Andreasen, N. C., Strauss, D. H., Yale, S. A., Clark, S. C., & Gorman, J. M. (1994). Awareness of illness in schizophrenia and schizoaffective and mood disorders. Archives of General Psychiatry, 51, 826-836.

Amador, X. F., Friedman, J. H., Kasapis, C., Yale, S. A., Flaum, M., & Gorman, J. M. (1996). Suicidal behavior in schizophrenia and its relationship to awareness of illness. American Journal of Psychiatry, 153, 1185-1188.

Amador, X. F., & Strauss, D. H. (1993a). Poor insight in schizophrenia. Psychiatric Quarterly, 64 (4), 305-318.

Amador, X. F., & Strauss, D. H. (1993b). Scale to Assess Unawareness of Mental Disorder training manual. Unpublished manuscript.

Amador, X. F., Strauss, D. H., Yale, S., & Gorman, J. M. (1991). Awareness of illness in schizophrenia. Schizophrenia Bulletin, 17 (1), 113-132.

Amador, X. F., Strauss, D. H., Yale, S., Gorman, J. M., & Endicott, J. (1993). Assessment of insight in psychosis. American Journal of Psychiatry, 150 (6), 873-879.

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.

American Psychiatric Association. (1997). Practice guideline for the treatment of patients with schizophrenia. American Journal of Psychiatry, 154 (4), 1-62.

183

Andreasen, N. C. (1982). Negative versus positive schizophrenia: Definition and validation. <u>Archives of General Psychiatry</u>, <u>39</u>, 784-788.

Andreasen, N. C., & Carpenter, W. T. (1993). Diagnosis and classification of schizophrenia. <u>Schizophrenia Bulletin</u>, <u>19</u> (2), 199-214.

Anker, J. M., & Walsh, R. P. (1961). Group psychotherapy, a special activity program, and group structure in the treatment of chronic schizophrenia. <u>Journal of Consulting Psychology</u>, <u>25</u>, 476-481.

Bartko, G., Herczog, I., & Zador, G. (1988). Clinical symptomatology and drug compliance in schizophrenic patients. <u>Acta Psychiatrica Scandinavica</u>, <u>77</u>, 74-76.

Bebbington, P., & Kuipers, L. (1992). Life events and social factors. In D. J. Kavanagh (Ed.), <u>Schizophrenia: An overview and practical handbook</u> (pp. 126-144). New York: Chapman & Hall.

Benes, F. M., & Bird, E. D. (1987). An analysis of the arrangement of neurons in the cingulate cortex of schizophrenic patients. <u>Archives of General Psychiatry</u>, <u>44</u>, 608-616.

Bernheim, K. F., & Lewine, R. R. (1979). <u>Schizophrenia: Symptoms, causes, treatments</u>. New York: W. W. Norton.

Bertschinger, H. (1916). Processes of recovery in schizophrenics. <u>Psychoanalysis Review</u>, <u>3</u>, 176-188.

Bibring, E. (1954). Psychoanalysis and the dynamic psychotherapies. <u>Journal of the American Psychoanalytic Association</u>, <u>2</u>, 745-770.

Bleuler, E. (1950). <u>Dementia Praecox or the group of schizophrenias</u> (J. Zinkin, Trans.). New York: International Universities Press.

Blum, H. P. (1979). The curative and creative aspects of insight. <u>Journal of the American Psychoanalytic Association</u>, <u>27</u>, 41-69.

Borg, W. R., & Gall, M. D. (1989). <u>Educational Research</u>. New York: Longman.

Breier, A., & Astrachan, B. (1984). Characterization of schizophrenic patients who commit suicide. <u>American Journal of Psychiatry</u>, <u>141</u>, 206-209.

Breier, A., Schreiber, J. L., Dyer, J., & Pickar, D. (1991). National Institute of Mental Health longitudinal study of chronic schizophrenia: Prognosis and predictors of outcome. Archives of General Psychiatry, 48, 239-246.

Buckley, P. F., Buchanan, R. W., Schulz, S. C., & Tamminga, C. A. (1996). Catching up on schizophrenia. Archives of General Psychiatry, 53, 456-462.

Bureau of the Census. (1990). Washington, DC: Government Printing Office.

Carpenter, W. T., Bartko, J. J., Carpenter, C. L., and Strauss, J. S. (1976). Another view of schizophrenia subtypes. Archives of General Psychiatry, 33, 508-516.

Clark, L. A., Watson, D., & Reynolds, S. (1995). Diagnosis and classification of psychopathology: Challenges to the current system and future directions. Annual Review of Psychology, 46, 121-153.

Cohen, J. (1992). A power primer. Psychological Bulletin, 112 (1), 155-159.

Cohen, J. (1968). Statistical power analysis for the behavioral sciences. New York: Academic Press.

Cohen, J., & Cohen, P. (1983). Applied multiple regression/correlation analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Erlbaum.

Cone, J. D., & Foster, S. L. (1995). Dissertations and theses from start to finish: Psychology and related fields. Washington, DC: American Psychological Association.

Conrad, K. (1958). Die beginnende schizophrenie. Versuch einer gestaltsanalyse des wahns. Stuttgart: Georg Thieme Verlag.

Conte, H. R. (1994). Review of research in supportive psychotherapy: An update. American Journal of Psychotherapy, 48 (4), 494-518.

Cook, T. D., & Campbell, D. T. (1979). Quasi-experimentation: Design and analysis issues for field settings. Boston: Houghton Mifflin.

Cornelius, J. R., Mezzich, J., Fabrega, H., Cornelius, M. D., Myers, J., & Ulrich, R. F. (1991). Characterizing organic hallucinosis. Comphrehensive Psychiatry, 32 (4), 338-344.

Council for the Accreditation of Counseling and Related Educational Programs. (1994). <u>Accreditation Procedures Manual and Application</u>. Alexandria, VA: Author.

Cuesta, M. J., & Peralta, V. (1994). Lack of insight in schizophrenia. <u>Schizophrenia Bulletin, 20</u> (2), 359-366.

Cuffel, B. J., Alford, J., Fischer, E. P., & Owen, R. R. (1996). Awareness of illness in schizophrenia and outpatient treatment adherence. <u>Journal of Nervous and Mental Disease, 184</u> (11), 653-659.

Dagonet, H. (1881). Conscience et alienation mentale. <u>Annales Medico-Psychologiques, 5</u>, 368-397.

David, A. S. (1990). On insight and psychosis: Discussion paper. <u>Journal of the Royal Society of Medicine, 83</u>, 325-329.

David, A., Van Os, J., Jones, P., Harvey, I., Foerster, A., & Fahy, T. (1995). Insight and psychotic illness. <u>British Journal of Psychiatry, 167</u>, 621-628.

Dill, D. L., Eisen, S. V., & Grob, M. C. (1989). Validity of record ratings of the Global Assessment Scale. <u>Comprehensive Psychiatry, 30</u> (4), 320-323.

Dittmann, J., & Schuttler, R. (1990). Disease consciousness and coping strategies of patients with schizophrenic psychosis. <u>Acta Psychiatrica Scandinavica, 82</u>, 318-322.

Drake, R., & Cotton, P. G. (1986). Depression, hopelessness, and suicide in chronic schizophrenia. <u>British Journal of Psychiatry, 148</u>, 554-559.

Endicott, J., Spitzer, R. L., Fleiss, J. L., & Cohen, J. (1976). The Global Assessment Scale: A procedure for measuring overall severity of psychiatric disturbance. <u>Archives of General Psychiatry, 33</u>, 766-771.

Falloon, I. R. H., Boyd, J. L., & McGill, C. W. (1984). <u>Family care of schizophrenia</u>. New York: Guilford Press.

Feldt, L. S., & Brennan, R. L. (1989). Reliability. In R. L. Linn (Ed.), <u>Educational measurement</u> (3rd ed., pp. 65-79). New York: American Counsel on Education.

Flashman, L. A., Flaum, M., Gupta, S., & Andreasen, N. C. (1996). Soft signs and neurological performance in schizophrenia. <u>American Journal of Psychiatry, 153</u> (4), 526-532.

Freud, A. (1941). <u>The ego and mechanisms of defense</u> (C. Baines, Trans.). London: Hogarth Press.

Freud, S. (1957a). The interpretation of dreams. In J. Strachey (Ed. and Trans.), <u>The standard edition of the complete psychological works of Sigmund Freud</u> (Vol. 14, pp. 8-37). London: Hogarth Press. (Original work published 1900)

Freud, S. (1957b). Wild psycho-analysis. In J. Strachey (Ed. and Trans.), <u>The standard edition of the complete psychological works of Sigmund Freud</u> (Vol. 11, pp. 9-55). London: Hogarth Press. (Original work published 1910)

Gabbard, G. O., Lazar, S. G., Hornberger, J., & Speigel, D. (1996). The economic impact of psychotherapy: A review. <u>American Journal of Psychiatry, 154</u> (2), 147-154.

Goodwin, D. W., & Guze, S. B. (1996). <u>Psychiatric diagnosis</u>. New York: Oxford University Press.

Greben, S. E. (1984). <u>Love's labor: Twenty-five years of experience in the profession of psychotherapy</u>. New York: Schocken.

Green, M. F. (1996). What are the functional consequences of neurocognitive deficits in schizophrenia? <u>American Journal of Psychiatry, 153</u> (3), 321-330.

Greenfeld, D., Strauss, J. S., Bowers, M. B., & Mandelkern, M. (1989). Insight and interpretation of illness in recovery from psychosis. <u>Schizophrenia Bulletin, 15</u> (2), 245-252.

Heath, R. G., Franklin, D. E., Walker, C. F., & Keating, J. W. (1982). Cerebellar vermal atrophy in psychiatric patients. <u>Biological Psychiatry, 17</u>, 569-583.

Hegarty, J. D., Baldessarini, R. J., Tohen, M., Waternaux, C., & Oepen, G. (1994). One hundred years of schizophrenia: A meta-analysis of the outcome literature. <u>American Journal of Psychiatry, 151</u> (10), 1409-1413.

Heinrichs, D. W., Cohen, B. P., & Carpenter, W. T. (1985). Early insight and the management of schizophrenic decompensation. <u>Journal of Nervous and Mental Disease, 173</u> (3), 133-138.

Hoffman, R. E., & McGlashan, T. H. (1993). Parallel distributed processing and the emergence of schizophrenic symptoms. <u>Schizophrenia Bulletin, 19</u> (1), 119-137.

Hunter, R., & MacAlpine, I. (1963). 300 years of psychiatry: 1535-1860. Oxford: Oxford Univesity Press.

Jakob, H., & Beckman, H. (1986). Prenatal-developmental disturbances in the limbic allocortex in schizophrenia. Journal of Neural Transmission, 65, 303-326.

Jaspers, K. (1913). General psychopathology (J. Hoenig & M. W. Hamilton, Trans.). Manchester: Manchester University Press.

Jaspers, K. (1959). General psychopathology (J. Hoenig & M. W. Hamilton, Trans.). Manchester: Manchester University Press.

Jernigan, T. L. (1992). Neuroanatomical factors in schizophrenia. In D. J. Kavanagh (Ed.), Schizophrenia: An overview and practical handbook (pp. 97-106). New York: Chapman & Hall.

Jordan, J. C. (1995). First person account: Schizophrenia - adrift in an anchorless reality. Schizophrenia Bulletin, 21 (3), 501-503.

Jorgnesen, P. (1995). Recovery and insight in schizophrenia. Acta Psychiatrica Scandinavica, 92, 436-440.

Kane, J. M. (1989). Schizophrenia: Somatic treatment. In H. I. Kaplan & B. J. Sadock (Eds.), Comprehensive textbook of psychiatry (pp. 777-792). Baltimore: Williams & Wilkins.

Kavanagh, D. J. (Ed.). (1992). Schizophrenia: An overview and practical handbook. New York: Chapman & Hall.

Kay, S. R. (1991). Positive and negative syndromes in schizophrenia: Assessment and research. New York: Brunner/Mazel.

Kemp, R. A., & David, A. (1996). Psychological predictors of insight and compliance in psychotic patients. British Journal of Psychiatry, 169, 444-450.

Kemp, R. A., & Lambert, T. J. R. (1995). Insight in schizophrenia and its relationship to psychopathology. Schizophrenia Research, 18 (1), 21-28.

Kerlinger, F. N. (1986). Foundations of Behavioral Research. New York: Holt, Rinehart & Winston.

Kottgen, C., Sonnichsen, I., Mollenhauer, K., & Jurth, R. (1984). Group therapy with the families of schizophrenic patients: Results of the Hamburg Camberwell Family Interview Study. _International Journal of Family Psychiatry_, _5_, 84-94.

Kovelman, J. A., & Scheibel, A. B. (1984). A neurohistological correlate of schizophrenia. _Biological Psychiatry_, _19_, 1601-1621.

Leff, J., Berkowitz, R., Sharit, N., Strachan, A., Glass, I., & Vaughn, C. (1989). A trial of family therapy v. a relatives' group for schizophrenia. _British Journal of Psychiatry_, _154_, 58-66.

Leff, J., Kuipers, L., Berkowitz, R., & Sturgeon, D. (1985). A controlled trial of social intervention in the families of schizophrenic patients: Two year follow-up. _British Journal of Psychiatry_, _146_, 594-600.

Lewis, A. (1934). The psychopathology of insight. _British Journal of Medical Psychology_, _14_, 332-348.

Lieberman, J. A., & Rush, A. J. (1996). Redefining the role of psychiatry in medicine. _American Journal of Psychiatry_, _153_ (11), 1388-1396.

Lin, I. F., Spiga, R., & Fortsch, W. (1979). Insight and adherence to medication in chronic schizophrenics. _Journal of Clinical Psychiatry_, _40_, 430-432.

Lysaker, P., & Bell, M. (1994). Insight and cognitive impairment in schizophrenia. _Journal of Nervous and Mental Disease_, _182_ (11), 656-660.

Lysaker, P., & Bell, M. (1995). Work rehabilitation and improvements in insight in schizophrenia. _Journal of Nervous and Mental Disease_, _183_ (2), 103-106.

Lysaker, P., Bell, M., Milstein, R., Bryson, G., & Beam-Goulet, J. (1994). Insight and psychosocial treatment compliance in schizophrenia. _Psychiatry_, _57_, 307-315.

Mac Millan, F., Birchwood, M., & Smith, J. (1992). Predicting and controlling relapse in schizophrenia: Early signs monitoring. In D. J. Kavanagh (Ed.), _Schizophrenia: An overview and practical handbook_ (pp. 6-22). New York: Chapman & Hall.

Manderscheid, R. W., & Sonnenschein, M. A. (1996). _Mental health, United States, 1996_. Rockville, MD: U. S. Department of Health and Human Services.

Marder, S. R. (1996). Management of schizophrenia. Journal of Clinical Psychiatry, 57 (3), 9-13.

Marder, S. R. (1992). Pharmacological treatment of schizophrenia. In D. J. Kavanagh (Ed.), Schizophrenia: An overview and practical handbook (pp. 325-338). New York: Chapman & Hall.

Marder, S. R. (1984). A study of medication refusal by involuntary psychiatric patients. Hospital and Community Psychiatry, 35 (7), 724-726.

Markova, I. S., & Berrios, G. E. (1995a). Insight in clinical psychiatry: A new model. Journal of Nervous and Mental Disease, 183 (12), 743-751.

Markova, I. S., & Berrios, G. E. (1995b). Insight in clinical psychiatry revisited. Comprehensive Psychiatry, 36 (5), 367-376.

Markova, I. S., & Berrios, G. E. (1992). The meaning of insight in clinical psychiatry. British Journal of Psychiatry, 160, 850-860.

Martin, A. R. (1952). The dynamics of insight. American Journal of Psychoanalysis, 12, 24-38.

Matthysse, S. (1996). Editor's introduction: Upward toward phenomenology, downward toward physiology. In S. Matthysse, D. B. Levy, J. Kagan, & F. M. Benes (Eds.), Psychopathology: The evolving science of mental disorder (pp. 301-312). New York: Cambridge University Press.

Mayer-Gross, W. (1920). Uber die stellungnahme zur abgelaufenen akuten psychose. Zeitschrifte fur die Gesmate Neurologie und Psychiatrie, 60, 160-212.

McCreadie, R. G., & Phillips, K. (1988). The Nithsdale schizophrenia survey: Does relatives' high expressed emotion predict relapse? British Journal of Psychiatry, 152, 477-481.

McEvoy, J. P., Appelbaum, P. S., Apperson, L. J., Geller, J. L., & Freter, S. (1989). Why must some schizophrenic patients be involuntarily committed: The role of insight. Comprehensive Psychiatry, 30 (1), 13-17.

McEvoy, J. P., Apperson, L. J., Appelbaum, P. S., Ortlip, P., Brecosky, J., Hammil, K., Geller, J. L., & Roth, L. (1989). Insight in schizophrenia: Its relationship to acute psychopathology. Journal of Nervous and Mental Disease, 177, 43-47.

McEvoy, J. P., Freter, S., Everett, G., Geller, J. L., Appelbaum, P., Apperson, L. J., & Roth, L. (1989). Insight and the clinical outcome of schizophrenic patients. _Journal of Nervous and Mental Disease_, _177_ (1), 48-51.

McEvoy, J. P., Freter, S., Merritt, M., & Apperson, L. J. (1993). Insight about psychosis among outpatients with schizophrenia. _Hospital and Community Psychiatry_, _44_ (9), 883-884.

McEvoy, J. P., Schooler, N. R., Friedman, E., Steingard, S., & Allen, M. (1993). Use of psychopathology vignettes by patients with schizophrenia and schizoaffective disorder and by mental health professionals to judge patients' insight. _American Journal of Psychiatry_, _150_ (11), 1649-1653.

McGlashan, T. H., & Carpenter, W. T. (1981). Does attitude toward psychosis relate to outcome? _American Journal of Psychiatry_, _138_, 797-801.

McGlashan, T. H., Levy, S. T., & Carpenter, W. T. (1975). Integration and sealing over: Clinically distinct recovery styles from schizophrenia. _Archives of General Psychiatry_, _32_, 1269-1272.

McGorry, P. D., Singh, B. S., & Copolov, D. L. (1992). Diagnostic and symptomatological assessment. In D. J. Kavanagh (Ed.), _Schizophrenia: An overview and practical handbook_ (pp. 163-181). New York: Chapman & Hall.

McGrath, J. (1991). Ordering thoughts and thought disorder. _British Journal of Psychiatry_, _158_, 307-316.

McWilliams, N. (1994). _Psychoanalytic diagnosis._ New York: The Guilford Press.

Michalakeas, A., Skoutas, C., Charalambous, A., Peristeris, A., Marinos, V., Keramari, E., & Theologou, A. (1994). Insight in schizophrenia and mood disorders and its relation to psychopathology. _Acta Psychiatrica Scandinavica_, _90_, 46-49.

Miller, D. D. (1996). Schizophrenia: Its etiology and impact. _Pharmacotherapy_, _16_ (1), 1-5.

Mirsky, A. F. (1996). Familial factors in the imapirment of attention in schizophrenia: Data from Ireland, Israel, and the District of Columbia. In S. Matthysse, D. B. Levy, J. Kagan, & F. M. Benes (Eds.), _Psychopathology: The evolving science of mental disorder_ (pp. 364-406). New York: Cambridge University Press.

Morrison, J. (1995). <u>DSM-IV made easy: The clinician's guide to diagnosis</u>. New York: The Guilford Press.

Muijen, M. (1992). Community care: An evaluation. In D. J. Kavanagh (Ed.), <u>Schizophrenia: An overview and practical handbook</u> (pp. 424-438). New York: Chapman & Hall.

Oakley, L. D., & Potter, C. (1997). <u>Psychiatric primary care</u>. New York: Mosby.

O'Connor, R., & Herrman, H. (1993). Insight in schizophrenia. <u>Australian and New Zealand Journal of Psychiatry, 27</u> (4), 595-600.

Othmer, E., & Othmer, S. C. (1994). The clinical interview using DSM-IV. Washington, DC: American Psychiatric Press.

Owen, F., & Cross, A. J. (1992). Biochemistry of schizophrenia. In D. J. Kavanagh (Ed.), <u>Schizophrenia: An overview and practical handbook</u> (pp. 79-96). New York: Chapman & Hall.

Penn, D. L., & Mueser, K. T. (1996). Research update on the psychosocial treatment of schizophrenia. <u>American Journal of Psychiatry, 153</u> (5), 607-617.

Peralta, V., & Cuesta, M. J. (1994). Lack of insight: Its status within schizophrenic psychopathology. <u>Society of Biological Psychiatry, 36</u>, 559-561.

Randrup, A., & Munkvad, I. (1966). On the role of dopamine in the amphetamine excitatory response. <u>Nature, 211</u>, 540.

Read, T., Potter, M., & Gurling, H. M. D. (1992). The genetics of schizophrenia. In D. J. Kavanagh (Ed.), <u>Schizophrenia: An overview and practical handbook</u> (pp. 107-125). New York: Chapman & Hall.

Reid, J. R., & Finesinger, J. E. (1952). The role of insight in psychotherapy. <u>American Journal of Psychiatry, 108</u>, 726-734.

Richfield, J. (1954). An analysis of the concept of insight. <u>Psychoanalytic Quarterly, 23</u>, 390-408.

Risch, S. C. (1996). Pathophysiology of schizophrenia and the role of newer antipsychotics. <u>Pharmacotherapy, 16</u> (1), 11-14.

Roback, H. B., & Abramowitz, S. I. (1979). Insight and hospital adjustment. _Canadian Journal of Psychiatry_, _24_, 233-236.

Roberts, G. W., & Bruton, C. J. (1990). Notes from the graveyard: Neuropathology and schizophrenia. _Neuropathology and Applied Neurobiology_, _16_, 3-16.

Rogers, C. (1957). The necessary and sufficient conditions of therapeutic personality change. _Journal of Consulting Psychology_, _21_, 95-103.

Romney, D. M. (1995). Psychosocial functioning and subjective experience in schizophrenia: A reanalysis. _Schizophrenia Bulletin_, _21_ (3), 405-409.

Sacks, M. H., Carpenter, W. T., & Strauss, J. S. (1974). Recovery from delusions: Three phases documented by patient's interpretation of research procedures. _Archives of General Psychiatry_, _30_, 117-120.

Sanguineti, V. R., Samuel, S. E., Schwartz, S. L., & Robeson, M., R. (1996). Retrospective study of 2,200 involuntary psychiatric admissions and readmissions. _American Journal of Psychiatry_, _153_ (3), 392-396.

Savage, C. (1987). Countertransference in the therapy of schizophrenics. In E. Slakter (Ed.), _Countertransference_ (pp. 115-130). Northvale, NJ: Jason Aronson.

Schwartz, R. C. (in press). The relationship between insight, illness, and treatment outcome in schizophrenia. _Psychiatric Quarterly_.

Schwartz, R. C., Cohen, B. N., & Grubaugh, A. (1997). Does insight affect long-term inpatient treatment outcome in chronic schizophrenia? _Comprehensive Psychiatry_, _38_ (5), 1-7.

Slakter, E. (Ed.). (1987). _Countertransference_. Northvale, NJ: Jason Aronson.

Sledge, W. H., Astrchan, B., Thompson, K., Rakefeldt, J., & Leaf, P. (1996). Case mangement in psychiatry: An analysis of tasks. _American Journal of Psychiatry_, _152_ (9), 1259-1264.

Soskis, D. A., & Bowers, M. B. (1969). The schizophrenic experience: A follow-up study of attitude and post hospital adjustment. _Journal of Nervous and Mental Disease_, _149_, 443-449.

Spitzer, R. L., Gibbon, M., & Endicott, J. (1975). _The Global Assessment Scale_ (GAS). New York: New York State Psychiatric Institute.

Stuss, D. T., & Benson, D. F. (1986). _The frontal lobes_. New York: Raven Press.

Takai, A., Uematsu, M., Ueki, H., & Sone, K. (1992). Insight and its related factors in chronic schizophrenic patients: A preliminary study. _European Journal of Psychiatry, 6_ (3), 159-170.

Talbott, J. A., Goldman, H. H., & Ross, L. (1987). Schizophrenia: An economic perspective. _Psychiatric Annals, 17_ (9), 577-579.

Talbott, J. A., Hales, R. E., & Yudofsky, S. C. (1988). _Textbook of psychiatry_. Washington, DC: American Psychiatric Press.

Tolor, A., & Reznikoff, M. (1960). A new approach to insight: A preliminary report. _Journal of Nervous and Mental Disease, 130_, 286-296.

Townsend, M. C. (1996). _Psychiatric nursing: Concepts of care_. Philadelphia, PA: F. A. Davis Company.

Vacc, N. A., Loesch, L. C., & Guilbert, D. E. (1997). The clientele of certified clinical mental health counselors. _Journal of Mental Health Counseling, 19_ (2), 165-170.

Van Puten, T., Crumpton, E., & Yale, C. (1976). Drug refusal and the wish to be crazy. _Archives of General Psychiatry, 33_, 1443-1446.

Wallerstein, R. S. (1983). Some thoughts about insight and psychoanalysis. _Israel Journal of Psychiatry and Related Sciences, 20_, 33-43.

Ward, J. C., & Dow, M. G. (1997). _1996 Florida Statewide Statistics for the The Functional Assessment Rating Scale_ (FARS) (Florida Mental Health Institute). Tampa, FL: University of South Florida, Department of Community Mental Health.

Ward, J. C., & Dow, M. G. (1994). _The Functional Assessment Rating Scale_ (FARS) (Florida Mental Health Institute). Tampa, FL: University of South Florida, Department of Community Mental Health.

Ward, J. C., Dow, M. G., Saunders, T., Penner, K., & Halls, S. (1996, July). Functional Assessment Rating Scale (FARS) Training. Paper presented at the annual meeting of Meridian Behavioral Healthcare, Inc. of Florida, Gainesville, FL.

Ward, J. C., Dow, M. G., Saunders, T., Penner, K., Halls, S., & Sachs-Ericsson, N. (1995). Structured Interview for the Functional Assessment Rating Scale (FARS) (Florida Mental Health Institute). Tampa, FL: University of South Florida, Department of Mental Health.

Wing, J. K. (1992). Differential diagnosis of schizophrenia. In D. J. Kavanagh (Ed.), Schizophrenia: An overview and practical handbook (pp. 6-22). New York: Chapman & Hall.

Wooley, D. W., & Shaw, E. (1954). A biochemical and pharmacological suggestion about certain mental disorders. Procedures of the National Academy of Science, 40, 228-231.

World Health Organization. (1973). Report of the international pilot study of schizophrenia. Geneva: World Health Organization.

World Health Organization. (1995). Schizophrenia: Epidemiology of mental disorders and psychosocial problems. Geneva: World Health Organization.

Wykes, T. (1992). The assessment of severely disabled psychiatric patients for rehabilitation. In D. J. Kavanagh (Ed.), Schizophrenia: An overview and practical handbook (pp. 221-238). New York: Chapman & Hall.

Young, D. A., Davila, R., & Sher, H. (1993). Unawareness of illness and neuropsychological performance in chronic shizophrenia. Schizophrenia Research, 10 (2), 117-124.

Yurgelun-Todd, D. A., Waternaux, C. M., Cohen, B. M., Gruber, S. A., English, C. D., & Renshaw, P. F. (1996). Functional magnetic resonance imaging of schizophrenic patients and comparison subjects during word production. American Journal of Psychiatry, 153 (2), 200-205.

Zilboorg, G. (1952). The emotional problem and the therapeutic role of insight. Psychoanalytic Quarterly, 21, 1-24.

BIOGRAPHICAL SKETCH

Robert C. Schwartz was born in El Paso, Texas, on November 29, 1969. After graduating from Hollywood Hills High School in 1988, Robert began attending the University of Florida. He earned a Bachelor of Science degree (with honors) in psychology in 1992 and then entered the University of Florida Department of Counselor Education. He earned a Master of Education and a Specialist in Education in 1994, specializing in Mental Health Counseling. Robert then began the doctoral program in Counselor Education at The University of Florida, where he was awarded a Doctor of Philosophy degree in 1997. During his graduate career, Robert published several national articles, most of them focused on schizophrenia. He also received several awards, including the Chi Sigma Iota National Outstanding Research Award in 1997. Robert has always been interested in helping others through theory and research focused on the promotion of mental health and wellness. In the future, he hopes to further enhance the field of mental health as well as the lives of his clients.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.
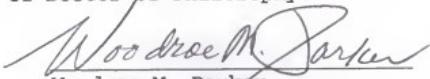
Woodroe M. Parker
Professor of Counselor
Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.
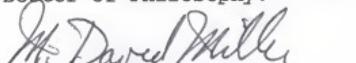
M. David Miller
Professor of Foundations of
Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.
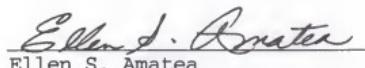
Ellen S. Amatea
Professor of Counselor
Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.
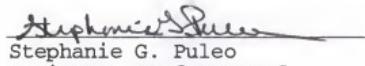
Stephanie G. Puleo
Assistant Professor of
Counselor Education

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December, 1997

Rodeuer J McDouei
Dean, College of Education

_____

Dean, Graduate School